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6 February 2009

Mr. F. Thomas Lubozynski, P.E.
Waste Program Administrator
Solid and Hazardous Waste Program
Florida Department of Environmental Protection, Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Re: 9th Semi-Annual Water Quality Monitoring Report
J.E.D. Solid Waste Management Facility, Osceola County, Florida
Permit No. SC49-0199726-006 and SO49-0199726-007

Dear Mr. Lubozynski:

Submitted herewith is the subject report documenting the 9th semi-annual water quality monitoring event conducted at the J.E.D. Solid Waste Management (JED) Facility located in Osceola County, Florida. This report is being submitted as required for compliance with the conditions contained within Exhibit I, Monitoring Plan Implementation Schedule (MPIS) of the above referenced permit. In accordance with the permit conditions, the semi-annual water quality monitoring event was performed in November 2008. This report is being submitted within the sixty day period after receipt of final analytical data from the laboratory. This report satisfies the semi-annual water quality monitoring compliance requirements as described in Exhibit I of the permit.

As noted in the permit, one hard copy of the report along with an electronic copy of the report on a CD is being submitted to FDEP. The CD with a PDF copy of the entire report is attached to the inside of the front cover of the report. If you have any questions or need additional information, please do not hesitate to contact the undersigned.

Sincerely,

Kirk Wills

Kirk Wills
Project Engineer

Attachments

Copy: Mike Kaiser, WSI

Submitted to:

Florida Department of Environmental Protection

NINTH SEMI-ANNUAL WATER QUALITY MONITORING REPORT

J.E.D. Solid Waste Management Facility

Osceola County, Florida

Prepared for

Waste Services of Florida, Inc.
1501 Omni Way
St. Cloud, Florida

Prepared by

Geosyntec consultants

14055 Riveredge Drive, Suite 300
Tampa, Florida 33637

Project Number FQ1512
February 2009

MICHAEL N. LOBATO LICENSE STATE OF FLORIDA PROFESSIONAL GEOLOGIST
2/23/09

ATTACHMENT I

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

GROUND WATER MONITORING REPORT

Rule 62-522.600(11)

RECEIVED
FEB 09 2009
DEP Central Dist.

PART I GENERAL INFORMATION

(1) Facility Name J.E.D. Solid Waste Management Facility, Class I Landfill

Address 1501 Omni Way

City St. Cloud Zip 34773 County Osceola

Telephone Number (407) 891-3720 (2) WACS_Facility 89544

(3) DEP Permit Number SC49-0199726-006 and SO49-0199726-007

(4) Authorized Representative's Name _Title R. Shawn McCash, Senior Vice President

Address 2893 Executive Park Drive, Suite 305

City Weston Zip 33331 County Broward

Telephone Number (954) 888-4302

(5) Type of Discharge NA

(6) Method of Discharge NA

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

2/2/09 R. Shawn McCash

Date Owner or Authorized Representative's Signature

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Comp QAP # NA

Analytical Lab Comp QAP #/ HRS Certification E82502

Lab Name Columbia Analytical Services, Inc.

Address 9143 Phillips Highway, Suite 200, Jacksonville, Florida 32256

Phone Number (904) 739-2277

E-mail Address cmyers@caslab.com or http://www.caslab.com/

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1. INTRODUCTION

1.1 Terms of Reference

This report documents the implementation of the Water Quality Monitoring Plan (Plan) for the J.E.D. Solid Waste Management (JED) facility. The Plan was prepared as a part of the JED facility permit applications. The requirements for executing the Plan are presented in Exhibit I of the current permit (Permit Numbers SC49-0199726-004 and SO49-0199726-005, and Major Permit Modification Numbers SC49-0199726-006 and SO49-0199726-007) that authorizes the development of Phases 1 through 3 at the JED facility. The current permit was issued by the Florida Department of Environmental Protection (FDEP) on 4 April 2008. This report presents the results for the 9th semi-annual water quality (groundwater, surface water, and leachate) monitoring event conducted between 3 November 2008 and 12 November 2008.

This report was prepared on behalf of Waste Services Incorporated (WSI), parent company of Omni Waste of Osceola County, LLC, owner and operator of the JED facility by Mr. Sangho "Jay" Eun and Mr. Kirk E. Wills of Geosyntec Consultants (Geosyntec). In accordance with Geosyntec's peer review procedures, Mr. Michael Lodato, P.G. reviewed this report.

1.2 Overview

The Plan and Exhibit I describe a water quality monitoring program at the JED facility that has as its intent to: (i) measure and report groundwater and surface water conditions for the monitoring network; (ii) monitor the groundwater flow direction; (iii) monitor the groundwater and surface water quality on a semi-annual basis; and (iv) monitor leachate quality on an annual basis. The 9th semi-annual water quality monitoring has been completed. This report includes presentation and discussions of the sample locations, sampling procedures, laboratory analyses and results, field data measurements, groundwater level measurements, groundwater flow direction, and surface water and leachate quality monitoring performed in November 2008. In addition, this report includes a comparison of the analytical results of this sampling event to applicable Groundwater Cleanup Target Levels (GCTLs) as promulgated in Chapter 62-777, Florida Administrative Code (FAC).

1.3 Site Description

The JED facility is located in eastern Osceola County, Florida, west of U.S. Highway 441, and approximately 6.5 miles south of Holopaw. The facility includes a Class I landfill, which is linked to U.S. Highway 441 by a 2.86-mile access road. The JED facility comprises a total of approximately 2,179 acres. The landfill footprint at build-out is approximately 264 acres and consists of a total of 21 landfill cells that provide available waste capacity for a period of approximately 30 years. The FDEP issued a permit to construct and operate Phase 1 development of the JED facility in October 2003. Phase 1 development includes four landfill cells (Cells 1 through 4), located in the northern part of the landfill and covering approximately 53 acres. As part of Phase 1, forty-five (45) groundwater monitoring wells were installed in fifteen (15) clusters (MW-1 through MW-15) around the perimeter of the Phase 1 development area. The baseline water quality report for the Phase 1 monitoring well network was submitted to FDEP in May 2004. All components of the Phase 1 development have been constructed.

The FDEP issued a permit to construct and operate Phases 2 and 3 at the JED facility in March 2007. The development of Phases 2 and 3 includes six cells (Cells 5 through 10) with a total footprint of approximately 72 acres. As part of Phases 2 and 3 development, and as approved by FDEP, six (6) existing Phase 1 monitoring wells (MW-14 A, B, and C, and MW-15 A, B, and C), and ten (10) piezometers were decommissioned. The wells and piezometers were decommissioned to allow for construction of future cells, construction of a storm water retention basin located within Phases 2 and 3, and due to the proximity of piezometers to the new network wells installed. The decommissioning of the monitoring wells and piezometers was discussed in the Phases 2 and 3 baseline water quality report. For the development of Phases 2 and 3, twenty-four (24) additional groundwater monitoring wells were installed in eight (8) well clusters (MW-16 through MW-23) around the perimeter of the Phases 2 and 3 development areas in September 2007. The baseline water quality report for the Phases 2 and 3 monitoring well network was submitted to FDEP in January 2008.

The FDEP issued a permit to construct and operate Phases 1 through 3 with vertical expansion at the JED facility in April 2008. The monitoring well networks for Phase 1, and Phases 2 and 3 remain unchanged. For monitoring purposes, the JED facility was given the Water Assurance Compliance System (WACS) facility identification number 89544.

2. MONITORING WELL DETAILS

2.1 Well Layout and Construction

For the Phase 1 development, forty five (45) groundwater monitoring wells were installed in fifteen (15) clusters (MW-1 through MW-15) around the perimeter of the Phase 1 development area. Monitoring well clusters were located such that the spacing between well clusters was no greater than 500 ft, in accordance with the FDEP permit requirements. For development of Phases 2 and 3, twenty four (24) groundwater monitoring wells were installed in eight (8) clusters (MW-16 through MW-23) around the perimeter of the Phases 2 and 3 development areas. In accordance with the FDEP permit requirements, the monitoring well clusters were located such that the spacing between detection well clusters (MW-16 through MW-21) was approximately 500 feet, and the spacing between background well clusters (MW-22 and MW-23) was approximately 800 feet. Each monitoring well cluster consisted of three (3) groundwater monitoring wells installed (i) across the water table to monitor the upper limit of the surficial aquifer (identified as A-zone [shallow] wells); (ii) within the lower limit of the upper surficial aquifer above the intermediate clay layer (identified as C-zone [deep] wells); and (iii) at an intermediate depth between the shallow and deep wells (identified as B-zone [intermediate] wells).

A layout depicting the location of groundwater monitoring wells installed for Phases 2 and 3, and the previously installed groundwater monitoring wells for Phase 1, and the piezometers installed as part of the hydro-geologic investigation are shown for the shallow, intermediate, and deep zones on Figures 1, 2, and 3, respectively. As shown, groundwater monitoring well clusters MW-1 through MW-13 and MW-23 were installed along the top of the outer edge of the landfill perimeter berm. The ground surface at the location of the wells in the perimeter berm is at approximately Elevation 92 feet with respect to National Geodetic Vertical Datum of 1929 (NGVD, 1929). Groundwater monitoring well clusters MW-16 and MW-17 were installed along the outer edge of the landfill perimeter berm that serves as the initial storm water berm. The ground surface at these two well locations is at approximately Elevation 85 feet (NGVD, 1929). Groundwater monitoring well clusters MW-18 through MW-22 were installed along the interim Phase 3 storm water berm at the southern limit of the Phase 3 development at approximately Elevation 84 feet (NGVD, 1929). The location of each well, in Florida state plane coordinates and latitude/longitude, and elevation (NGVD, 1929) was surveyed by professional land surveyors licensed in the State of Florida.

Wells were constructed with 2-in diameter schedule 40 PVC casing. The well screens were 10-ft in length with #6-slot (0.006-in.). A 30/45 graded silica sand was placed around the screen to a height of 2 to 3 ft above the top of the screen. A seal of 30/65 graded fine silica sand was placed above the sand filter around the screen. The remaining annular space from the top of the fine sand filter seal to the existing ground surface was grouted using a tremie pipe with a cement/bentonite mixture containing no more than 5

percent bentonite by dry weight. The PVC well casings were extended approximately 2.5 to 3 ft above the existing ground surface. Surface completion consisted of a protective steel or aluminum casing with a lockable cover set in a concrete pad. Each well was provided with a well cap, padlock, and an identification label. A summary of the monitoring well construction details are presented in Table 1.

2.2 Turbidity Issues

As discussed in the baseline water quality reports for the Phase 1, and Phases 2 and 3 monitoring networks, the formation around the screened intervals consists primarily of a fine, brown to dark brown, silty sand. Due to the subsurface formation properties, fine-grained and colloidal material are able to pass through the sand filter pack in many wells, primarily in the B-zone and C-zone. This is the case even though the wells are constructed using the smallest screen slot size (0.006 in.) commonly available. Most of the intermediate and deep wells had turbidity values in excess of the 20-NTU criterion even after extended well development and the removal of multiple well volumes.

The difficulty in attaining the desired turbidity criterion was originally discussed at a meeting between Geosyntec and FDEP on 12 January 2004 during the well development activities associated with the wells installed as part of the Phase 1 development. Geosyntec notified FDEP again on 14 September 2007 of the elevated turbidity levels even after extended well development during development of the Phases 2 and 3 monitoring wells. In accordance with these discussions, it was agreed to collect field-filtered (1-micron) and unfiltered samples for metals analyses for any sample with a turbidity value greater than 20 NTU. The data generated by the dual sampling is expected to help demonstrate: (i) what effect turbidity may have on metal analyses (i.e., compare total and dissolved metal concentrations); and (ii) whether groundwater samples with turbidities greater than 20 NTU showed higher concentrations of metals than those samples with turbidities less than 20 NTU.

3. MONITORING WELL SAMPLING

3.1 Sampling Locations and Procedures

In accordance with the monitoring plan implementation schedule (MPIS), thirty three (33) monitoring wells installed as part of the Phase 1 development and all twenty four (24) monitoring wells installed as part of the Phase 2 and 3 development were sampled.

Low-flow sampling techniques were used for groundwater sample collection. Except for the turbidity considerations as described in the previous section, all groundwater sampling was performed in accordance with the current applicable FDEP Standard Operating Procedures (SOP's, February 2004) for groundwater sampling. Additionally for quality control (QC) purposes, two sample duplicates and one equipment blank were collected and analyzed.

Peristaltic pumps were used to purge and sample all A-zone (shallow) and a limited number of B-zone (intermediate), and C-zone (deep) groundwater monitoring wells where the measured turbidity from previous water quality events was below 20 NTU. A stainless steel submersible pump was used to purge and sample the remainder of the B-zone (intermediate) and C-zone (deep) groundwater wells where the turbidity from the previous water quality events was above 20 NTU. New tubing (silicone and/or polyethylene) was used at each monitoring well location.

During the purging process, a YSI 556 water quality meter equipped with a flow-through cell was used to monitor the following field parameters: pH; temperature; field conductivity; Eh; and dissolved oxygen. Turbidity levels were measured using a LaMotte 2020e turbidity meter. Field parameters were recorded on sample collection forms, which are contained in Appendix A. When the field parameters stabilized within the acceptable tolerances required by the FDEP SOP, well purging was considered complete and groundwater samples were collected. For wells where the turbidity was not less than 20 NTU, stability was established by purging at least 5 well volumes and observing variations in the measured turbidity. For problematic wells, once the turbidity had stabilized and all other parameters conformed to the guidance set forth in the FDEP SOP's, samples were collected. A non-filtered and field-filtered (1-micron) metals sample was collected for each monitoring well where turbidity measurements exceeded the 20 NTU level.

For monitoring wells where peristaltic pumps were used, volatile organic compound (VOC) sample vials were filled by removing the down well sample tubing, disconnecting the tubing from the water quality meter flow through cell, and reversing the flow direction on the peristaltic pump.

For the monitoring wells that were purged and sampled with a submersible pump, all sample aliquots were filled directly from the down-well tubing.

The calibration of the water quality monitoring instruments was checked daily and re-calibrated when necessary. Water quality instrument calibration forms are presented in Appendix B. Samples were placed in coolers and packed with bagged ice for transport to the analytical laboratory. Chain-of-Custody (COC) forms were completed and

accompanied the samples to the analytical laboratory. All COC forms have been included in Appendix C of this report. Trip blank samples accompanied all sample coolers with VOC samples. Temperature blanks were packed in each sample cooler. Security seals were affixed to every cooler shipped.

3.2 Sample Analyses

Samples were analyzed by Columbia Analytical Services, Inc. (Columbia) of Jacksonville, Florida in accordance with the National Environmental Laboratory Accreditation Conference (NELAC) standards. Columbia holds certification from the Florida Department of Health (FDOH) for the analytical test methods used for this project and is certified in the State of Florida for analysis of environmental samples. A copy of Columbia's Florida Department of Health certificate is included in Appendix D.

Groundwater samples were analyzed by Columbia for total ammonia as nitrogen (N), chlorides, nitrate, total dissolved solids (TDS), iron, mercury, sodium, and the 40 CFR Part 258 Appendix I parameters. Other required parameters (i.e., pH; temperature; specific conductance; turbidity; Eh; and dissolved oxygen) were measured in the field during collection of the groundwater samples.

4. ANALYTICAL RESULTS

4.1 Field Parameters

Table 2 provides a summary of the field measurements of selected water quality parameters utilized for determining sample stability for this semi-annual monitoring event.

4.2 Groundwater Monitoring Wells

The analytical results for this groundwater sampling event have been transferred to a compact disc (CD) in the FDEP electronic validator spreadsheet format that is included in Appendix E. PDF versions of the laboratory reports have also been included. Analytical results have been summarized in Tables 3 through 6 to show all parameters where a constituent concentration was reported above the method detection limit. Any parameter exceeding GCTLs has been highlighted. The following discussion regarding groundwater quality is organized by analytical methods.

Total Metals (Method 6020 and Method 7470 for Mercury)

Arsenic was detected in twenty (20) monitoring wells in concentrations ranging between 0.5 and 19 ug/L. All reported concentrations are less than the GCTL for arsenic of 10 ug/L except for MW-11A and 13A, where the reported concentrations were 19 and 16 ug/L, respectively. As discussed in the second biennial water quality monitoring report (September 2008), a positive correlation exists between iron and arsenic levels for monitoring wells at the site. This has been documented throughout the State of Florida, and is due to the fact that low levels of naturally occurring arsenic are bound up primarily by ferric (iron) hydroxides in many Florida soils. This has been discussed in previous correspondence with FDEP. Arsenic was detected in MW-21C where a dissolved (filtered) metal sample was collected at a concentration of 0.7 ug/L, which is below the GCTL of 10 ug/L.

Barium was detected in fifty six (56) monitoring wells in concentrations ranging between 2.1 and 416 ug/L, all of which are below the GCTL of 2,000 ug/L. For the seven (7) wells (MW-8B, 16B, 20B, 22B, 19C, 20C, and 21C) where dissolved (filtered) metals samples were collected, concentrations of barium ranged between 11 and 61 ug/L, which are all below the GCTL.

Beryllium was detected in one (1) monitoring well, MW-4B, at a concentration of 1.6 ug/L, which is below the GCTL of 4 ug/L. Beryllium was not detected in any of the dissolved (filtered) metal samples.

Chromium was detected in nineteen (19) monitoring wells at concentrations ranging between 2.1 and 9.6 ug/L, which are all below the GCTL of 100 ug/L. Chromium was detected in one (1) of the dissolved (filtered) metals samples (MW-21C) at a concentration of 3.0 ug/L, which is below the GCTL.

Five (5) wells (MW-2A, 7A, 8A, 11A, and 4B) contained detectable concentrations of cobalt ranging between 1.1 and 1.9 ug/L, which are all below the GCTL of 140 ug/L. Cobalt was not detected in any of the dissolved (filtered) metal samples.

Copper was detected in three (3) monitoring wells (MW-10A, 22B, and 3C) at concentrations ranging between 2.1 and 9.0 ug/L, which are all below the GCTL of 1,000 ug/L. Copper was not detected in any of the dissolved (filtered) metal samples.

Iron was detected in all fifty seven (57) monitoring wells in concentrations ranging between 0.18 and 18 mg/L, all but three (3) wells (MW-21A, 22A, and 5B) exceeded the GCTL of 0.3 mg/L. For the seven (7) wells (MW-8B, 16B, 20B, 22B, 19C, 20C, and 21C) where dissolved (filtered) metals samples were collected, concentrations of iron ranged between 0.1 and 1.5 mg/L, which are all above the GCTL except for MW-22B. Iron has historically exceeded the GCTL in all wells at the site for all monitoring events including the baseline event. The iron concentrations reported for the 9th semi-annual event are typical of previous monitoring events.

Lead was detected in eleven (11) monitoring wells in concentrations ranging between 1 and 8.3 ug/L, all of which were below the GCTL of 15 ug/L. Lead was detected in one (1) of the dissolved (filtered) metals samples (MW-8B) at a concentration of 2.7 ug/L, which is below the GCTL.

Nickel was detected in seven (7) monitoring wells (MW-3A, 8A, 21A, 22A, 23A, 3C and 9C) at concentrations ranging between 0.9 and 6.9 ug/L, which are all below the GCTL of 100 ug/L. Nickel was not detected in any of the dissolved (filtered) metal samples.

Sodium was detected in all fifty seven (57) monitoring wells in concentrations ranging between 3.1 and 73 mg/L, which are all below the GCTL of 160 mg/L. For the seven (7) wells (MW-8B, 16B, 20B, 22B, 19C, 20C, and 21C) where dissolved (filtered) metals samples were collected, concentrations of sodium ranged between 6.5 and 16 mg/L, which are all below the GCTL.

Vanadium was detected in eight (8) monitoring wells at concentrations ranging between 6.0 and 12 ug/L, which are all below the GCTL of 49 ug/L. Vanadium was not detected in any of the dissolved (filtered) metal samples.

Zinc was detected in four (4) monitoring wells at concentrations ranging between 11 and 3,910 ug/L, which are all below the GCTL of 5,000 ug/L. Zinc was detected in one (1) of the dissolved (filtered) metals samples (MW-20B) at a concentration of 12 ug/L, which is below the GCTL.

Ammonia-N (Method 350.1)

Ammonia-N was detected in fifty five (55) monitoring wells in concentrations ranging between 0.1 mg/L and 16 mg/L. All reported concentrations are less than the GCTL for ammonia-N of 2.8 mg/L except for MW-3A, 4A, 5A, 7A, 8A, 9A, 10A, 11A, 19A, and 4B, where the reported concentrations ranged between 3.0 and 16 mg/L. Ammonia-N has historically exceeded the GCTL in these wells at the site for the previous monitoring events including the baseline event. The ammonia concentrations reported for the 9th semi-annual event are typical of previous monitoring events.

Anions by IC (Method 300.0)

Chloride was detected in all fifty seven (57) monitoring wells at concentrations ranging between 6 and 100 mg/L. All reported concentrations are less than the GCTL for chloride of 250 mg/L.

Nitrate-N (Method 300.0)

Nitrate-N was detected in MW-21A and 22A at concentrations of 0.20 and 0.22 mg/L, respectively, which are all below the GCTL of 10 mg/L.

Total Dissolved Solids (TDS) (Method 160.1)

All fifty seven (57) wells contained detectable concentrations of TDS ranging between 32 and 660 mg/L. All reported concentrations are below the GCTL of 500 mg/L except for MW-4B (660 mg/L).

40 CFR Part 258, Appendix I Volatile Compounds (Method 8260)

Acetone was detected in one (1) well (MW-13B) at a concentration of 120 ug/L, which is below the GCTL of 6,300 ug/L.

Benzene was detected in three (3) wells (MW-9A, 10A, and 11A) at concentrations of ranging between 1.3 and 7.7 ug/L, which are all above the GCTL of 1.0 ug/L.

2-Butanone (MEK) was detected in one (1) well (MW-20A) at a concentration of 22 ug/L, which is below the GCTL of 4,200 ug/L.

Ethyl benzene was detected in two (2) wells (MW-9A and 19B) at concentrations of 3.1 and 2.0 ug/L, respectively, which are both below the GCTL of 30 ug/L.

Cis-1,2-Dichloroethene was detected in one (1) well (MW-9A) at a concentration of 2.3 ug/L, which is below the GCTL of 70 ug/L.

M&p-xylenes was detected in one (1) well (MW-9A) at a concentration of 7.5 ug/L, which is below the GCTL of 20 ug/L.

O-xylene was detected in one (1) well (MW-9A) at a concentration of 3.3 ug/L, which is below the GCTL of 20 ug/L.

Toluene was detected in four (4) wells (MW-9A, 18B, 19B, and 16C) at concentrations ranging between 1.6 and 16 ug/L, which are all below the GCTL of 40 ug/L.

Vinyl Chloride was detected in one (1) well (MW-9A) at a concentration of 2.1 ug/L, which is above the GCTL of 1.0 ug/L.

The GCTL for benzene was exceeded in MW-9A, 10A, and 11A. The GCTL for vinyl chloride was exceeded in MW-9A. In accordance with Chapter 62-701.510(7)(a) F.A.C. and Paragraph 4 of Monitoring Plan Implementation Schedule section of the FDEP Permit, the FDEP is to be notified within 14 days after the receipt of the laboratory data of any GCTL exceedances. The notification also informed the FDEP if any confirmatory samples will be collected from any of the wells or if the data will be accepted as indicative of groundwater conditions. Confirmatory samples are to be collected within thirty (30) days of receipt of data from the laboratory. On behalf of WSI, Geosyntec notified Mr. Thomas Lubozynski (FDEP) in a letter dated 1 December 2008 of the GCTL exceedances in the MW-9A, 10A, and 11A for which certified data was received by Geosyntec on 18 November 2008.

The GCTL for benzene and vinyl chloride were exceeded in monitoring well MW-9A and for benzene in MW-11A. Based on previous analytical laboratory results for both wells and the results of the duplicate sample collected at MW-9A, confirmatory samples were not collected for these two wells.

Before this 9th semi-annual event, benzene had not exceeded the GCTL in MW-10A. A confirmatory sample was collected from MW-10A on 15 December 2008 for Appendix I list of volatile organic compounds (VOCs). The confirmational sampling was performed within 30 days of receiving data for the initial sampling event. The analytical results for the confirmational sampling event reported benzene at a concentration of 1.3 ug/L, which is the same result as the initial sample.

4.3 Data Validation

All analyses were performed within the method specified holding times.

An equipment blank was collected using the peristaltic pump set up used for collection of the groundwater samples. De-ionized water supplied by Columbia was pumped through the peristaltic tubing and analyzed for the same parameters as the groundwater samples. All constituents analyzed for were non-detect for all analyses performed.

Two blind field duplicates were collected: Dup-01 was a blind duplicate of sample MW-9A, and Dup-02 was a blind duplicate of sample MW-16C. A review of the analytical data shows that the blind duplicate sample data are in general agreement to the original sample data for all analytes.

4.4 Impact of Turbidity on Metals Concentrations

As discussed in Section 2.2 of this report, extended well development was not successful in reducing turbidity levels in a number of B-zone (intermediate) and C-zone (deep) groundwater monitoring wells.

Turbidity levels were less than the FDEP guidance of 20 NTU in fifty (50) of the fifty seven (57) wells sampled. A review of the analytical results for these fifty low-turbidity wells shows that arsenic, barium, beryllium, chromium, cobalt, copper, iron, lead, nickel, sodium, vanadium, and zinc were reported above the method detection limits. The reported concentrations are comparable to those reported for samples with turbidity levels greater than 20 NTU. Analytical results for total metals are presented in Table 3.

Table 4 presents dissolved metals (filtered) analytical results for the seven (7) wells (MW-8B, 16B, 20B, 22B, 19C, 20C, and 21C). These wells displayed turbidity readings greater than 20 NTU, as a result, filtered samples were collected for each well. Turbidity values for the total metals samples ranged between 44.4 and 76.2 NTU. A review of the analytical results for these seven (7) wells indicates that copper and vanadium were detected in samples with turbidities level greater than 20 NTU and not in samples with turbidities less than 20 NTU.

For comparison of analytical results between the total metals (filtered) and dissolved metals (unfiltered) for the seven (7) wells, arsenic, chromium, copper, lead, and vanadium were the metals for which a greater number of detections were made in the unfiltered samples than the filtered samples

Filtering of the samples did not appear to have a significant impact on metals concentrations. The presence and concentrations of all metals analyzed were comparable between the unfiltered and the filtered samples.

5. GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION

5.1 Field Measurements

Groundwater level measurements were obtained on 3 November 2008 from all of the Phases 1 through 3 groundwater monitoring wells and the remaining piezometers installed as part of the original site hydrogeological investigation. All groundwater levels measurements were made within an approximate 4-hr period. The groundwater level measurements from the monitoring wells and piezometers are presented in Table 7.

It should be noted that, as part of the site hydrogeological investigation, a total of 27 piezometers were installed. Two (2) piezometers (DP-1 and DP-2) located at the northern part of the site within Cell 1 footprint were decommissioned and abandoned on 3 October 2003 by Ambient Technologies, Inc. (ATI) of St. Petersburg, Florida. Two (2) additional piezometers (DP-3 and DP-4) located within Cell 3 footprint were decommissioned and abandoned on 16 January 2006 by National Environmental Technology, Inc (NET) Drilling Services of Dover, Florida. For the development of Phases 2 and 3, six (6) of the Phase 1 groundwater monitoring wells (MW-14A, 14B, 14C, 15A, 15B, and 15C) and ten (10) additional piezometers (DP-5, DP-6, DP-7, DP-8, DP-9, DP-10, DP-11, DP-12, DP-13, and SZ-1) were decommissioned and abandoned on 10 and 11 July 2007 by NET Drilling Services. Geosyntec monitored all monitoring well and piezometer decommissioning activities.

5.2 Water Level Contours

The water level contour maps prepared from groundwater level measurements for the three upper surficial aquifer zones (i.e., A-zone, B-zone and C-zone) are presented in Figures 1, 2, and 3.

Historically, the direction of the horizontal component of groundwater flow for all three zones is predominantly east-northeast towards Bull Creek. However, the dewatering operation for the Bronson's borrow area has created a localized groundwater depression on the west side of the Phase 1 development area. Groundwater flow along the western property boundary is predominantly west towards the dewatering area. Based on a review of the groundwater level elevation data collected from the remainder of the A-zone, B-zone, and C-zone monitoring well network, the direction of the horizontal component of groundwater flow is predominantly east-northeast toward Bull Creek.

Comparison of water levels between the A, B and C wells shows a similar vertical gradient ($1E^{-3}$ ft/ft). These gradients are consistent with the regional gradient in the upper surficial

aquifer and indicate an interconnected, sluggish flow regime in the saturated zone above the Intermediate Confining Unit (ICU).

6 SURFACE WATER SAMPLING

6.1 Sampling Locations and Procedures

Two (2) surface water sampling locations established during the initial hydrogeological investigation were selected by FDEP for routine water quality monitoring. As stated in the Permit, surface water samples are only to be collected when there is flow in Bull Creek.

Collection of surface water samples commenced at the upstream monitoring station (SW-4) followed by the downstream monitoring location (SW-3). Bull Creek was observed to be flowing at the time of sampling. Surface water samples were collected from the approximate center of Bull Creek. A YSI 556 water quality meter was used to measure field parameters including temperature, pH, dissolved oxygen, specific conductance, and Eh at each sampling location. Turbidity levels were measured using a LaMotte 2020e turbidity meter. Surface water samples were collected in accordance with FDEP surface water sampling SOPs.

6.2 Sample Analyses

Surface water samples were analyzed by Columbia in accordance with the NELAC (National Environmental Laboratory Accreditation Conference) standards for unionized ammonia, total hardness as $CaCO_3$, total organic carbon, chlorides, nitrate, total dissolved solids (TDS), total suspended solids (TSS), biological oxygen demand (BOD), chemical oxygen demand (COD), total nitrogen as N, nitrate as N, total phosphates as P, chlorophyll A, iron, mercury, fecal coli form, and the 40 CFR, Part 258 Appendix I parameters. Other required parameters (e.g., pH; temperature; specific conductance; turbidity; Eh; and dissolved oxygen) were field measured during collection of the surface water samples.

6.3 Field Measurements and Analytical Results

Table 8 provides a summary of the final field parameter values and field data measured for the surface water samples.

The analytical results for the surface water samples collected are presented on a CD in Appendix E. Copies of the laboratory reports (PDF) and the electronic data files in the FDEP electronic validator spreadsheet format are included on the CD. Analytical results have been summarized in Table 8 to show all parameters where a constituent concentration was reported above the method detection limit and any parameter exceeding Surface Water Quality Criteria (SWQC) Class III concentrations.

The pH concentrations at SW-3 and 4 were both lower than the SWQC range of 6-8.5 standard units, but are consistent with normal ranges of pH as measured in rainfall (i.e., precipitation).

7 LEACHATE SAMPLING

7.1 Sampling Location and Procedures

In accordance with the permit requirements, a leachate sample is to be collected from each disposal cell on an annual basis. To date, Cells 1 through 5 have been constructed and have received waste. The construction of Cell 6 was complete, but waste placement within the cell had not commenced at the time of the sampling event. Therefore, leachate samples for this 9th semi-annual sampling event were collected from primary leachate sump risers for Cells 1 through 5 only. These leachate samples collected as part of the 9th semi-annual sampling event fulfills the leachate sampling requirement for the year 2008.

The leachate samples were collected from sampling ports that are connected with each primary leachate sump riser. An YSI 556 water quality meter was used to measure field parameters including temperature, pH, dissolved oxygen, specific conductance, Eh, and turbidity. The leachate samples were collected in accordance with FDEP SOP.

7.2 Sample Analyses

The leachate sample was analyzed by Columbia-Jacksonville in accordance with the NELAC standards for total ammonia-N, bicarbonate, chlorides, nitrate, total dissolved solids (TDS), iron, mercury, sodium and the 40 CFR, Part 258 Appendix II parameters. Other required parameters (i.e., pH; temperature; specific conductance; turbidity; Eh; and dissolved oxygen) were field measured during collection of the leachate samples.

7.3 Field Measurements and Analytical Results

Table 9 provides a summary of the field parameter values and field data measured for the leachate samples.

The analytical results for the leachate samples are presented on a CD in Appendix E. Analytical results have been summarized in Table 9 to show all parameters where a constituent concentration was reported above the method detection limit. No constituents tested exceeded the regulatory levels listed in 40 CFR Part 261.24. It should be noted that the leachate from the JED facility is removed from the site for treatment.

Table 1 (1 of 3)

SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Well Designation	Latitude (NAD 1983)	Longitude (NAD 1983)	WACS ID	Date Installed	Top of Casing Elevation, TOC (feet)	Total Depth (feet BTOC)	Screen Setting				Sand Pack (feet BTOC)	Fine-Grained Sand Seal (feet BTOC)
							(feet BTOC)		(feet Elevation)			
							Top	Bottom	Top	Bottom		
MW-1A	28 03 48.55	81 05 59.88	19900	9-Dec-03	95.1	23.0	13.0	23.0	82.1	72.1	10.6	8.2
MW-2A	28 03 51.99	81 05 59.90	19903	10-Dec-03	95.2	22.6	12.6	22.6	82.6	72.6	10.3	8.9
MW-3A	28 03 55.34	81 05 59.91	19906	11-Dec-03	94.6	22.8	12.8	22.8	81.9	71.9	10.4	9.0
MW-4A	28 03 58.97	81 05 59.92	19909	12-Dec-03	95.5	23.1	13.1	23.1	82.4	72.4	10.8	9.4
MW-5A	28 04 02.92	81 05 59.95	19912	24-Nov-03	95.3	22.5	12.5	22.5	82.8	72.8	10.1	9.1
MW-6A	28 04 06.50	81 05 59.15	19915	25-Nov-03	94.7	22.6	12.6	22.6	82.2	72.2	10.6	8.6
MW-7A	28 04 07.13	81 05 54.78	19918	26-Nov-03	95.5	23.3	13.3	23.3	82.2	72.2	10.3	9.3
MW-8A	28 04 06.20	81 05 50.64	19921	5-Dec-03	94.7	22.5	12.5	22.5	82.2	72.2	10.2	8.6
MW-9A	28 04 04.34	81 05 46.60	19924	4-Dec-03	94.7	22.4	12.4	22.4	82.3	72.3	10.0	8.6
MW-10A	28 04 00.07	81 05 44.77	19927	3-Dec-03	96.3	22.1	12.1	22.1	84.1	74.1	9.8	7.6
MW-11A	28 03 55.43	81 05 43.27	19930	3-Dec-03	93.6	22.8	12.8	22.8	80.7	70.7	10.5	9.1
MW-12A	28 03 52.08	81 05 43.26	19933	2-Dec-03	95.1	23.0	13.0	23.0	82.1	72.1	10.7	9.3
MW-13A	28 03 48.67	81 05 43.25	19936	8-Dec-03	95.2	22.5	12.5	22.5	82.7	72.7	10.2	7.7
MW-14A	Monitoring Well Abandoned 10 July 2007											
MW-15A	Monitoring Well Abandoned 10 July 2007											
MW-16A	28 03 44.55	81 05 40.22	22342	21-Sep-07	88.69	18.63	8.1	18.1	80.6	70.6	6.1	5.1
MW-17A	28 03 42.38	81 05 35.42	22345	22-Sep-07	88.86	19.88	9.4	19.4	79.5	69.5	7.4	6.4
MW-18A	28 03 37.21	81 05 35.16	22348	11-Sep-07	87.56	17.70	7.2	17.2	80.4	70.4	5.2	4.2
MW-19A	28 03 33.40	81 05 39.60	22351	11-Sep-07	87.54	17.65	7.2	17.2	80.4	70.4	5.2	4.2
MW-20A	28 03 31.82	81 05 45.45	22354	19-Sep-07	87.12	17.93	7.4	17.4	79.7	69.7	5.4	4.4
MW-21A	28 03 32.10	81 05 52.48	22357	14-Sep-07	87.20	18.04	7.5	17.5	79.7	69.7	5.5	4.5
MW-22A	28 03 32.35	81 05 59.48	22360	14-Sep-07	87.71	18.00	7.5	17.5	80.2	70.2	5.5	4.5
MW-23A	28 03 42.41	81 05 59.79	22363	25-Sep-07	97.90	27.75	17.3	27.3	80.7	70.7	15.3	14.3

Table 1 (2 of 3)

SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Well Designation	Latitude (NAD 1983)	Longitude (NAD 1983)	WACS ID	Date Installed	Top of Casing Elevation, TOC (feet)	Total Depth (feet BTOC)	Screen Setting				Sand Pack (feet BTOC)	Fine-Grained Sand Seal (feet BTOC)
							(feet BTOC)		(feet Elevation)			
							Top	Bottom	Top	Bottom		
MW-1B	28 03 48.59	81 05 59.89	19901	9-Dec-03	95.0	47.9	37.9	47.9	57.1	47.1	35.6	33.1
MW-2B	28 03 51.94	81 05 59.90	19904	10-Dec-03	95.2	48.3	38.3	48.3	56.9	46.9	36.0	34.6
MW-3B	28 03 55.31	81 05 59.91	19907	11-Dec-03	94.7	47.6	37.6	47.6	57.1	47.1	35.3	33.9
MW-4B	28 03 59.01	81 05 59.92	19910	12-Dec-03	95.2	47.4	37.4	47.4	57.8	47.8	35.1	33.5
MW-5B	28 04 02.88	81 05 59.95	19913	24-Nov-03	95.3	47.1	37.1	47.1	58.2	48.2	34.4	32.7
MW-6B	28 04 06.48	81 05 59.18	19916	25-Nov-03	94.6	47.4	37.4	47.4	57.2	47.2	34.9	33.5
MW-7B	28 04 07.13	81 05 54.81	19919	26-Nov-03	95.3	47.5	37.5	47.5	57.8	47.8	34.5	33.5
MW-8B	28 04 06.19	81 05 50.60	19922	5-Dec-03	94.6	49.6	39.6	49.6	55.0	45.0	37.1	35.6
MW-9B	28 04 04.31	81 05 46.56	19925	4-Dec-03	94.6	49.1	39.1	49.1	55.5	45.5	36.8	35.3
MW-10B	28 04 00.04	81 05 44.75	19928	3-Dec-03	96.2	48.3	38.3	48.3	58.0	48.0	35.9	33.9
MW-11B	28 03 55.40	81 05 43.27	19931	2-Dec-03	93.6	47.9	37.9	47.9	55.7	45.7	35.5	34.0
MW-12B	28 03 52.05	81 05 43.27	19934	1-Dec-03	95.0	49.0	39.0	49.0	56.1	46.1	36.6	35.1
MW-13B	28 03 48.64	81 05 43.24	19937	8-Dec-03	95.1	47.2	37.2	47.2	58.0	48.0	34.8	33.4
MW-14B	Monitoring Well Abandoned 10 July 2007											
MW-15B	Monitoring Well Abandoned 10 July 2007											
MW-16B	28 03 44.52	81 05 40.17	22343	21-Sep-07	88.73	38.09	27.6	37.6	61.1	51.1	25.6	24.6
MW-17B	28 03 42.35	81 05 35.36	22346	20-Sep-07	88.79	40.18	29.7	39.7	59.1	49.1	27.7	26.7
MW-18B	28 03 37.16	81 05 35.19	22349	11-Sep-07	87.43	37.80	27.3	37.3	60.1	50.1	25.3	24.3
MW-19B	28 03 33.38	81 05 39.66	22352	11-Sep-07	87.64	37.73	27.2	37.2	60.4	50.4	25.2	24.2
MW-20B	28 03 31.82	81 05 45.51	22355	19-Sep-07	87.27	37.76	27.3	37.3	60.0	50.0	25.3	24.3
MW-21B	28 03 32.09	81 05 52.55	22358	17-Sep-07	87.23	37.63	27.1	37.1	60.1	50.1	25.1	24.1
MW-22B	28 03 32.36	81 05 59.54	22361	14-Sep-07	87.69	37.96	27.5	37.5	60.2	50.2	25.5	24.5
MW-23B	28 03 42.46	81 05 59.79	22364	25-Sep-07	97.91	42.75	32.3	42.3	65.7	55.7	30.3	29.3

Table 1 (3 of 3)

SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Well Designation	Latitude (NAD 1983)	Longitude (NAD 1983)	WACS ID	Date Installed	Top of Casing Elevation, TOC (feet)	Total Depth (feet BTOC)	Screen Setting				Sand Pack (feet BTOC)	Fine-Grained Sand Seal (feet BTOC)
							(feet BTOC)		(feet Elevation)			
							Top	Bottom	Top	Bottom		
MW-1C	28 03 48.63	81 05 59.88	19902	9-Dec-03	95.2	75.2	65.2	75.2	30.0	20.0	62.9	61.4
MW-2C	28 03 51.90	81 05 59.89	19905	10-Dec-03	95.3	68.4	58.4	68.4	36.9	26.9	56.1	53.7
MW-3C	28 03 55.28	81 05 59.91	19908	11-Dec-03	94.7	68.7	58.7	68.7	36.0	26.0	56.3	54.8
MW-4C	28 03 59.04	81 05 59.92	19911	12-Dec-03	95.4	72.5	62.5	72.5	32.9	22.9	61.2	59.6
MW-5C	28 04 02.83	81 05 59.95	19914	24-Nov-03	95.4	73.0	63.0	73.0	32.4	22.4	60.7	58.7
MW-6C	28 04 06.46	81 05 59.22	19917	25-Nov-03	94.6	73.2	63.2	73.2	31.4	21.4	60.2	57.7
MW-7C	28 04 07.13	81 05 54.86	19920	25-Nov-03	94.9	73.3	63.3	73.3	31.6	21.6	60.3	59.3
MW-8C	28 04 06.17	81 05 50.55	19923	5-Dec-03	94.5	73.9	63.9	73.9	30.6	20.6	61.6	59.8
MW-9C	28 04 04.29	81 05 46.53	19926	4-Dec-03	94.5	73.8	63.8	73.8	30.8	20.8	61.4	59.4
MW-10C	28 04 00.01	81 05 44.74	19929	3-Dec-03	96.4	73.7	63.7	73.7	32.7	22.7	61.4	60.0
MW-11C	28 03 55.36	81 05 43.26	19932	2-Dec-03	93.7	73.4	63.4	73.4	30.3	20.3	61.0	59.6
MW-12C	28 03 52.01	81 05 43.26	19935	1-Dec-03	95.1	73.6	63.6	73.6	31.5	21.5	60.2	58.7
MW-13C	28 03 48.60	81 05 43.25	19938	8-Dec-03	95.0	73.0	63.0	73.0	32.1	22.1	60.7	58.2
MW-14C	Monitoring Well Abandoned 10 July 2007											
MW-15C	Monitoring Well Abandoned 10 July 2007											
MW-16C	28 03 44.50	81 05 40.11	22344	21-Sep-07	88.8	67.7	57.2	67.2	31.6	21.6	55.2	54.2
MW-17C	28 03 42.31	81 05 35.31	22347	20-Sep-07	88.9	67.3	56.8	66.8	32.0	22.0	54.8	53.8
MW-18C	28 03 37.10	81 05 35.22	22350	12-Sep-07	87.4	67.2	56.7	66.7	30.8	20.8	54.7	53.7
MW-19C	28 03 33.37	81 05 39.72	22353	10-Sep-07	87.4	66.7	56.2	66.2	31.2	21.2	54.2	53.2
MW-20C	28 03 31.82	81 05 45.57	22356	18-Sep-07	87.4	66.8	56.3	66.3	31.1	21.1	54.3	53.3
MW-21C	28 03 32.10	81 05 52.61	22359	17-Sep-07	87.1	62.6	52.1	62.1	35.1	25.1	50.1	49.1
MW-22C	28 03 32.36	81 05 59.60	22362	13-Sep-07	87.6	67.3	56.8	66.8	30.8	20.8	54.8	53.8
MW-23C	28 03 42.51	81 05 59.80	22365	24-Sep-07	97.9	67.1	56.6	66.6	41.4	31.4	54.6	53.6

Table 2

SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Monitoring Well	Temperature (°C)	pH (Standard Units)	Specific Conductance (mS/cm) [1]	Turbidity (NTUs) [2]	Oxidation-Reduction Potential (mV) [3]	DO (mg/L) [4]	Purging Method
MW-2A	26.30	5.31	0.134	1.1	-127.5	0.18	Peristaltic Pump
MW-3A	26.05	4.81	0.430	0.9	-9.1	0.27	Peristaltic Pump
MW-4A	24.12	5.06	0.261	2.9	-175.9	0.23	Peristaltic Pump
MW-5A	25.62	4.86	0.235	10.4	-132.4	0.26	Peristaltic Pump
MW-7A	24.29	4.92	0.159	0.4	-137.8	0.30	Peristaltic Pump
MW-8A	24.71	4.35	0.285	0.6	-110.0	0.33	Peristaltic Pump
MW-9A	25.17	4.74	0.176	8.8	-106.6	0.90	Peristaltic Pump
MW-10A	24.90	4.53	0.142	12.4	-38.8	0.72	Peristaltic Pump
MW-11A	26.06	4.91	0.203	6.0	-46.1	0.42	Peristaltic Pump
MW-12A	24.75	4.35	0.085	0.4	-109.9	0.28	Peristaltic Pump
MW-13A	24.77	4.77	0.111	2.9	-43.8	0.59	Peristaltic Pump
MW-16A	26.11	5.15	0.061	4.0	61.1	2.62	Peristaltic Pump
MW-17A	25.25	4.23	0.072	2.1	72.6	0.56	Peristaltic Pump
MW-18A	24.58	4.72	0.066	8.1	33.2	0.40	Peristaltic Pump
MW-19A	27.38	5.23	0.147	15.8	-107.8	0.28	Peristaltic Pump
MW-20A	24.98	4.91	0.094	18.7	38.8	1.42	Peristaltic Pump
MW-21A	25.50	4.14	0.105	1.3	152.9	1.58	Peristaltic Pump
MW-22A	25.38	4.34	0.093	1.9	119.5	0.41	Peristaltic Pump
MW-23A	23.55	4.91	0.159	1.5	29.5	0.45	Peristaltic Pump
MW-2B	24.06	4.45	0.048	0.2	100.4	0.44	Submersible Pump
MW-3B	25.31	5.12	0.099	0.7	-120.5	0.13	Submersible Pump
MW-4B	23.85	3.47	0.844	0.1	78.2	0.27	Peristaltic Pump
MW-5B	24.65	4.69	0.067	0.6	-129.0	0.37	Peristaltic Pump
MW-7B	24.05	4.94	0.089	3.2	-140.9	0.13	Submersible Pump
MW-8B	24.04	4.64	0.048	44.4	-92.1	0.26	Submersible Pump
MW-9B	24.83	4.59	0.069	8.2	-87.5	0.32	Submersible Pump
MW-10B	24.79	4.82	0.064	0.1	-155.5	0.19	Peristaltic Pump
MW-11B	25.00	5.02	0.064	6.2	-145.9	0.07	Submersible Pump
MW-12B	24.31	4.59	0.072	8.2	-14.0	0.31	Submersible Pump
MW-13B	24.25	4.86	0.047	10.0	-103.3	0.11	Submersible Pump
MW-16B	24.80	4.96	0.054	57.1	-93.0	0.22	Submersible Pump
MW-17B	24.09	4.93	0.082	11.2	-110.6	0.25	Submersible Pump
MW-18B	23.82	4.51	0.067	6.8	9.9	0.36	Submersible Pump
MW-19B	28.08	4.72	0.086	17.4	21.8	0.19	Submersible Pump
MW-20B	24.49	5.02	0.085	76.2	-75.7	0.30	Submersible Pump
MW-21B	24.46	5.10	0.090	18.8	-114.0	0.18	Submersible Pump
MW-22B	24.79	5.26	0.057	50.2	-138.6	0.30	Submersible Pump
MW-23B	24.41	4.72	0.065	0.5	-103.5	0.47	Submersible Pump
MW-2C	24.88	5.30	0.043	0.6	81.2	0.66	Peristaltic Pump
MW-3C	25.27	5.57	0.053	1.6	-124.4	0.35	Peristaltic Pump
MW-4C	23.74	5.33	0.093	17.7	51.7	0.32	Submersible Pump
MW-5C	24.25	4.91	0.071	3.5	-82.1	0.43	Peristaltic Pump
MW-7C	23.40	4.98	0.051	2.2	-83.1	0.51	Peristaltic Pump
MW-8C	23.54	4.66	0.047	1.5	-66.4	0.53	Peristaltic Pump
MW-9C	24.32	5.52	0.081	6.2	-158.3	0.44	Peristaltic Pump
MW-10C	24.16	4.73	0.042	11.6	-126.1	0.10	Submersible Pump
MW-11C	24.74	5.46	0.087	1.0	-158.3	0.21	Peristaltic Pump
MW-12C	23.72	4.51	0.046	4.1	-3.6	0.58	Peristaltic Pump
MW-13C	23.82	4.97	0.048	1.7	-78.7	0.45	Peristaltic Pump
MW-16C	24.28	5.11	0.073	6.2	-61.1	0.25	Submersible Pump
MW-17C	23.68	5.33	0.074	6.9	-93.1	0.18	Submersible Pump
MW-18C	23.60	5.21	0.081	19.0	12.2	0.22	Submersible Pump
MW-19C	26.95	5.15	0.087	71.0	16.0	0.50	Submersible Pump
MW-20C	23.69	5.19	0.077	60.0	-66.3	0.41	Submersible Pump
MW-21C	23.97	5.42	0.094	72.0	-98.5	0.25	Submersible Pump
MW-22C	24.33	6.99	0.433	2.1	-142.5	0.42	Peristaltic Pump
MW-23C	23.92	5.78	0.086	16.8	-128.9	0.26	Submersible Pump

Notes:

[1] mS/cm = milli Siemens per centimeter

[2] NTU = Nephelometric Turbidity Units

[3] mV = millivolts

[4] mg/L = milligram per liter

TABLE 3 (1 of 3)

SUMMARY OF ANALYTICAL RESULTS (TOTAL METALS)
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	Arsenic (ug/L)		Barium (ug/L)		Beryllium (ug/L)		Chromium (ug/L)	
GCTL		10		2,000		4		100	
MW-2A	B	0.9		14		0.2	I	1.9	I
MW-3A	B	1.2		76		0.2	U	1.8	I
MW-4A	B	0.9		27		0.2	U	2.1	
MW-5A	B	1.4		2.2		0.2	U	3.7	
MW-7A	D	1.2		13		0.2	U	1.8	I
MW-8A	D	0.9		63		0.2	U	1.8	I
MW-9A	D	2.4		2.7		0.2	U	2.8	
MW-10A	D	1.9		2.1		0.2	U	2.6	
MW-11A	D	19		13		0.2	U	4.6	
MW-12A	D	2		11		0.2	U	1.6	i
MW-13A	D	16		8.8		0.2	U	3.3	
MW-16A	D	0.2	U	14		0.2	U	1.1	I
MW-17A	D	0.5	I	22		0.2	U	1.6	I
MW-18A	D	1.3		7.4		0.2	U	1.8	I
MW-19A	D	1.9		20		0.2	U	5.5	
MW-20A	D	0.2	U	9.9	I	0.2	U	3.5	
MW-21A	D	0.2	U	26		0.2	U	1.5	I
MW-22A	B	0.2	I	14		0.2	U	1.9	I
MW-23A	B	0.3	I	10		0.2	U	1.6	I
MW-2B	B	1.4		9.9		0.2	U	0.8	U
MW-3B	B	0.2	U	20		0.2	U	0.8	U
MW-4B	B	1.1		87		1.6		1.2	I
MW-5B	B	0.5		11		0.2	U	0.9	I
MW-7B	D	0.4	I	34		0.2	U	1	I
MW-8B	D	0.3	I	53		0.2	U	3.8	
MW-9B	D	0.4	I	29		0.2	U	1.6	I
MW-10B	D	0.4	i	14		0.2	U	0.9	i
MW-11B	D	0.7		24		0.2	U	1.8	i
MW-12B	D	0.4	i	35		0.2	U	1.3	i
MW-13B	D	0.2	i	12		0.2	U	1.4	i
MW-16B	D	0.2	U	55		0.2	U	2.6	
MW-17B	D	0.2	I	29		0.2	U	1.1	I
MW-18B	D	0.2	U	11		0.2	U	1.2	I
MW-19B	D	0.2	U	27		0.2	U	1.4	I
MW-20B	D	0.3	I	119		0.3	I	9.6	
MW-21B	D	0.2	I	23		0.2	U	2.3	
MW-22B	B	0.8		41		0.2	U	4.1	
MW-23B	B	0.2	U	9.2		0.2	U	1	I
MW-2C	B	0.2	U	12		0.2	U	0.8	U
MW-3C	B	0.3	I	416		0.2	U	2.8	
MW-4C	B	0.2	I	20		0.2	U	2.9	
MW-5C	B	0.2	U	22		0.2	U	0.8	I
MW-7C	D	0.2	U	28		0.2	U	1	I
MW-8C	D	0.2	U	15		0.2	U	0.9	I
MW-9C	D	0.2	U	39		0.2	U	1.3	I
MW-10C	D	0.6		30		0.2	U	1.8	i
MW-11C	D	0.2	U	9.6		0.2	U	1	i
MW-12C	D	0.2	U	25		0.2	U	1.2	i
MW-13C	D	0.2	U	19		0.2	U	1	i
MW-16C	D	0.2	U	20		0.2	U	0.9	I
MW-17C	D	0.2	U	19		0.2	U	1.5	I
MW-18C	D	0.2	U	41		0.2	U	2.1	
MW-19C	D	0.2	U	65		0.5	I	4.9	
MW-20C	D	0.2	I	87		0.2	I	4.1	
MW-21C	D	0.6		61		0.3	I	3.7	
MW-22C	B	0.2	U	18		0.2	U	1.4	I
MW-23C	B	0.2	U	10		0.2	U	1.8	I
Dup-1 (MW-9A)		2.0		2.8		0.2	U	2.6	
Dup-2 (MW-16C)		0.2	U	19		0.2	U	1	I

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

TABLE 3 (2 of 3)

SUMMARY OF ANALYTICAL RESULTS (TOTAL METALS)
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	Cobalt (ug/L)		Copper (ug/L)		Iron (mg/L)		Lead (ug/L)	
GCTL		140		1,000		0.3		15	
MW-2A	B	1.9		0.5	I	6.5		0.2	U
MW-3A	B	0.8	I	0.6	I	2.5		0.2	U
MW-4A	B	0.8	I	0.8	I	3.4		0.2	U
MW-5A	B	0.2	U	1.3	I	0.32		1.4	
MW-7A	D	1.1		0.3	U	5.2		0.2	U
MW-8A	D	1.8		0.3	U	2.6		0.2	U
MW-9A	D	0.3	I	1	I	0.63		0.3	I
MW-10A	D	0.2	U	2.5		0.43		0.6	i
MW-11A	D	1.1		0.4	i	18.0		0.3	i
MW-12A	D	0.8	i	0.3	U	1.0		0.2	U
MW-13A	D	0.8	i	0.3	U	13.8		0.2	U
MW-16A	D	0.2	U	0.4	I	0.19		0.2	I
MW-17A	D	0.5	I	0.3	U	0.4		0.2	U
MW-18A	D	0.3	I	1.1	I	1.0		2.1	
MW-19A	D	0.3	I	1.8	I	2.2		1.0	I
MW-20A	D	0.6	I	1	I	0.89		1.5	
MW-21A	D	0.3	I	0.3	I	0.18		0.6	I
MW-22A	B	0.8	I	1.3	I	0.29		0.3	I
MW-23A	B	0.2	U	0.3	U	2.8		0.2	U
MW-2B	B	0.3	I	0.3	U	0.85		0.2	U
MW-3B	B	0.4	I	0.3	U	1.3		0.2	U
MW-4B	B	1.2		0.3	U	10.4		0.2	U
MW-5B	B	0.2	U	0.3	U	0.28		0.2	U
MW-7B	D	0.2	I	0.3	U	1.5		0.2	I
MW-8B	D	0.2	U	0.8	I	1.0		5.7	
MW-9B	D	0.2	I	0.3	U	1.0		0.8	I
MW-10B	D	0.2	i	0.3	U	0.5		0.2	U
MW-11B	D	0.2	U	0.4	i	0.6		0.7	i
MW-12B	D	0.2	U	0.4	i	1.1		1.0	
MW-13B	D	0.2	U	0.7	i	0.8		1.0	i
MW-16B	D	0.3	I	0.5	I	1.6		3.6	
MW-17B	D	0.3	I	0.5	I	1.4		0.4	I
MW-18B	D	0.2	U	0.3	U	0.46		0.4	I
MW-19B	D	0.2	U	1	I	0.75		1.3	
MW-20B	D	0.3	I	1.6	I	1.7		8.3	
MW-21B	D	0.2	U	1.4	I	1.9		1.4	
MW-22B	B	0.8	I	2.1		1.7		4.0	
MW-23B	B	0.2	I	1.3	I	0.45		0.3	I
MW-2C	B	0.2	U	0.3	U	0.53		0.2	U
MW-3C	B	0.3	I	9		0.73		2.4	
MW-4C	B	0.2	U	0.3	I	0.83		0.4	I
MW-5C	B	0.2	U	0.9	I	0.92		0.2	U
MW-7C	D	0.2	U	0.3	U	0.68		0.5	I
MW-8C	D	0.2	U	0.3	U	0.85		0.2	U
MW-9C	D	0.2	U	0.3	U	0.74		0.2	U
MW-10C	D	0.2	U	0.3	U	0.89		0.3	i
MW-11C	D	0.2	U	0.3	U	0.56		0.2	U
MW-12C	D	0.2	U	0.3	U	0.70		0.9	i
MW-13C	D	0.2	U	0.3	U	0.58		0.2	U
MW-16C	D	0.2	U	0.3	U	1.1		0.2	U
MW-17C	D	0.2	U	0.3	U	1.1		0.2	U
MW-18C	D	0.2	U	0.3	U	1.3		0.4	I
MW-19C	D	0.2	U	0.7	I	1.7		0.7	I
MW-20C	D	0.2	U	0.5	I	1.8		0.7	I
MW-21C	D	0.2	U	0.5	I	1.9		1.0	I
MW-22C	B	0.2	U	0.3	U	0.50		0.2	U
MW-23C	B	0.2	U	0.3	U	0.50		0.2	I
Dup-1 (MW-9A)		0.3	I	0.9	I	0.64		0.4	I
Dup-2 (MW-16C)		0.2	U	0.3	U	1.2		0.2	U

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

TABLE 3 (3 of 3)

SUMMARY OF ANALYTICAL RESULTS (TOTAL METALS)
EIGHTH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	Nickel (ug/L)		Sodium (mg/L)		Vanadium (ug/L)		Zinc (ug/L)	
GCTL		100		160		49		5,000	
MW-2A	B	1.1	I	13		1.5	I	4.0	U
MW-3A	B	3.1		46		2.6	I	126	
MW-4A	B	1.6	I	27		1.7	I	11	
MW-5A	B	0.9	I	18		1.9	I	4.0	U
MW-7A	D	1.4	I	15		1.2	U	4.0	U
MW-8A	D	4.1		30		2.8	I	4.0	U
MW-9A	D	1.2	I	11		1.7	I	4.0	U
MW-10A	D	1.0	i	10		1.2	U	7.0	i
MW-11A	D	1.3	i	14		3.9	i	4.0	U
MW-12A	D	2.0	i	11		1.4	i	4.0	U
MW-13A	D	0.7	i	9.3		3.7	i	4.0	U
MW-16A	D	0.5	I	3.1		6.2		5.0	I
MW-17A	D	1.2	I	5.8		6.0		4.0	I
MW-18A	D	1.0	I	7.5		4.9	I	4.0	U
MW-19A	D	1.0	I	11		8.4		7.0	I
MW-20A	D	1.6	I	9.1		6.2		5.0	I
MW-21A	D	2.0		7.9		4.3	I	4.0	U
MW-22A	B	2.1		12		2.8	I	8.0	I
MW-23A	B	0.9	I	12		1.5	I	4.0	U
MW-2B	B	0.3	U	6.1		1.2	U	4.0	U
MW-3B	B	0.3	U	8.3		1.2	U	4.0	U
MW-4B	B	1.2	I	73		2.7	I	5.0	I
MW-5B	B	0.4	I	7.1		1.2	U	15	
MW-7B	D	0.4	I	9.3		1.2	U	4.0	U
MW-8B	D	0.5	I	6.5		9.0		4.0	U
MW-9B	D	0.3	I	10		2.2	I	4.0	U
MW-10B	D	0.3	U	9.1		1.2	U	4.0	U
MW-11B	D	0.3	U	14		2.4	i	4.0	U
MW-12B	D	0.3	U	8.2		1.2	U	4.0	U
MW-13B	D	0.3	U	8.8		1.2	U	4.0	U
MW-16B	D	0.6	I	8.4		3.6	I	4.0	U
MW-17B	D	0.3	U	12		2.5	I	4.0	I
MW-18B	D	0.3	U	17		1.5	I	4.0	U
MW-19B	D	0.3	U	16		1.9	I	4.0	U
MW-20B	D	1.4	I	16		12		5.0	I
MW-21B	D	0.6	I	15		2.9	I	4.0	U
MW-22B	B	1.4	I	9.8		6.8		4.0	U
MW-23B	B	0.4	I	10		1.2	U	9.0	I
MW-2C	B	0.3	U	4.7		1.2	U	4.0	U
MW-3C	B	6.9		5		1.7	I	3910	
MW-4C	B	0.5	I	7.8		2.7	I	4.0	I
MW-5C	B	0.3	U	8.6		1.2	U	4.0	U
MW-7C	D	0.3	U	6.1		1.4	I	4.0	U
MW-8C	D	0.3	U	5.9		1.6	I	4.0	U
MW-9C	D	3.8		6.4		2.9	I	4.0	U
MW-10C	D	0.4	i	6.8		2.1	i	4.0	U
MW-11C	D	0.3	U	11		1.2	U	4.0	U
MW-12C	D	0.3	U	5.7		1.2	U	4.0	U
MW-13C	D	0.3	U	7.7		1.2	U	4.0	U
MW-16C	D	0.3	U	12		2.0	I	4.0	U
MW-17C	D	0.3	U	12		2.4	I	4.0	U
MW-18C	D	0.4	I	12		2.8	I	4.0	U
MW-19C	D	0.6	I	10		6.4		4.0	U
MW-20C	D	0.6	I	9.6		4.9	I	5.0	I
MW-21C	D	0.6	I	8.9		4.0	I	4.0	U
MW-22C	B	1.5	I	6.3		1.2	U	6.0	I
MW-23C	B	0.4	I	5.4		1.3	I	4.0	U
Dup-1 (MW-9A)		1.0	I	11		1.6	I	4.0	U
Dup-2 (MW-16C)		0.3	U	12		2.2	I	8.0	I

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

TABLE 4 (1 of 2)

SUMMARY OF ANALYTICAL RESULTS (DISSOLVED METALS)
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	Arsenic (ug/L)		Barium (ug/L)		Chromium (ug/L)		Iron (mg/L)	
GCTL		10		2,000		100		0.3	
MW-2A	B	NA		NA		NA		NA	
MW-3A	B	NA		NA		NA		NA	
MW-4A	B	NA		NA		NA		NA	
MW-5A	B	NA		NA		NA		NA	
MW-7A	D	NA		NA		NA		NA	
MW-8A	D	NA		NA		NA		NA	
MW-9A	D	NA		NA		NA		NA	
MW-10A	D	NA		NA		NA		NA	
MW-11A	D	NA		NA		NA		NA	
MW-12A	D	NA		NA		NA		NA	
MW-13A	D	NA		NA		NA		NA	
MW-16A	D	NA		NA		NA		NA	
MW-17A	D	NA		NA		NA		NA	
MW-18A	D	NA		NA		NA		NA	
MW-19A	D	NA		NA		NA		NA	
MW-20A	D	NA		NA		NA		NA	
MW-21A	D	NA		NA		NA		NA	
MW-22A	B	NA		NA		NA		NA	
MW-23A	B	NA		NA		NA		NA	
MW-2B	B	NA		NA		NA		NA	
MW-3B	B	NA		NA		NA		NA	
MW-4B	B	NA		NA		NA		NA	
MW-5B	B	NA		NA		NA		NA	
MW-7B	D	NA		NA		NA		NA	
MW-8B	D	0.3	I	31		1.5	I	0.8	
MW-9B	D	NA		NA		NA		NA	
MW-10B	D	NA		NA		NA		NA	
MW-11B	D	NA		NA		NA		NA	
MW-12B	D	NA		NA		NA		NA	
MW-13B	D	NA		NA		NA		NA	
MW-16B	D	0.2	I	19		0.8	U	1.4	
MW-17B	D	NA		NA		NA		NA	
MW-18B	D	NA		NA		NA		NA	
MW-19B	D	NA		NA		NA		NA	
MW-20B	D	0.3	I	12		0.8	U	1.4	
MW-21B	D	NA		NA		NA		NA	
MW-22B	B	0.3	I	11		0.8	U	0.1	
MW-23B	B	NA		NA		NA		NA	
MW-2C	B	NA		NA		NA		NA	
MW-3C	B	NA		NA		NA		NA	
MW-4C	B	NA		NA		NA		NA	
MW-5C	B	NA		NA		NA		NA	
MW-7C	D	NA		NA		NA		NA	
MW-8C	D	NA		NA		NA		NA	
MW-9C	D	NA		NA		NA		NA	
MW-10C	D	NA		NA		NA		NA	
MW-11C	D	NA		NA		NA		NA	
MW-12C	D	NA		NA		NA		NA	
MW-13C	D	NA		NA		NA		NA	
MW-16C	D	NA		NA		NA		NA	
MW-17C	D	NA		NA		NA		NA	
MW-18C	D	NA		NA		NA		NA	
MW-19C	D	0.2	U	29		0.8	U	0.9	
MW-20C	D	0.2	U	38		0.8	U	1.3	
MW-21C	D	0.7		61		3.0		1.5	
MW-22C	B	NA		NA		NA		NA	
MW-23C	B	NA		NA		NA		NA	

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

TABLE 4 (2 of 2)

SUMMARY OF ANALYTICAL RESULTS (DISSOLVED METALS)
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	Lead (ug/L)		Sodium (mg/L)		Zinc (ug/L)	
GCTL		15		180		5,000	
MW-2A	B	NA		NA		NA	
MW-3A	B	NA		NA		NA	
MW-4A	B	NA		NA		NA	
MW-5A	B	NA		NA		NA	
MW-7A	D	NA		NA		NA	
MW-8A	D	NA		NA		NA	
MW-9A	D	NA		NA		NA	
MW-10A	D	NA		NA		NA	
MW-11A	D	NA		NA		NA	
MW-12A	D	NA		NA		NA	
MW-13A	D	NA		NA		NA	
MW-16A	D	NA		NA		NA	
MW-17A	D	NA		NA		NA	
MW-18A	D	NA		NA		NA	
MW-19A	D	NA		NA		NA	
MW-20A	D	NA		NA		NA	
MW-21A	D	NA		NA		NA	
MW-22A	B	NA		NA		NA	
MW-23A	B	NA		NA		NA	
MW-2B	B	NA		NA		NA	
MW-3B	B	NA		NA		NA	
MW-4B	B	NA		NA		NA	
MW-5B	B	NA		NA		NA	
MW-7B	D	NA		NA		NA	
MW-8B	D	2.7		6.5		4.0	U
MW-9B	D	NA		NA		NA	
MW-10B	D	NA		NA		NA	
MW-11B	D	NA		NA		NA	
MW-12B	D	NA		NA		NA	
MW-13B	D	NA		NA		NA	
MW-16B	D	0.2	U	8.2		4.0	U
MW-17B	D	NA		NA		NA	
MW-18B	D	NA		NA		NA	
MW-19B	D	NA		NA		NA	
MW-20B	D	0.2	U	16.0		12.0	
MW-21B	D	NA		NA		NA	
MW-22B	B	0.2	U	9.7		4.0	U
MW-23B	B	NA		NA		NA	
MW-2C	B	NA		NA		NA	
MW-3C	B	NA		NA		NA	
MW-4C	B	NA		NA		NA	
MW-5C	B	NA		NA		NA	
MW-7C	D	NA		NA		NA	
MW-8C	D	NA		NA		NA	
MW-9C	D	NA		NA		NA	
MW-10C	D	NA		NA		NA	
MW-11C	D	NA		NA		NA	
MW-12C	D	NA		NA		NA	
MW-13C	D	NA		NA		NA	
MW-16C	D	NA		NA		NA	
MW-17C	D	NA		NA		NA	
MW-18C	D	NA		NA		NA	
MW-19C	D	0.2	U	10.0		4.0	U
MW-20C	D	0.2	U	9.4		4.0	U
MW-21C	D	0.9	I	9.6		4.2	I
MW-22C	B	NA		NA		NA	
MW-23C	B	NA		NA		NA	

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

TABLE 5 (1 of 2)

SUMMARY OF ANALYTICAL RESULTS (VOLATILE COMPOUNDS)
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	Acetone (ug/L)		Benzene (ug/L)		2-Butanone (MEK) (ug/L)		Ethyl Benzene (ug/L)	
GCTL		6,300		1.0		4,200		30	
MW-2A	B	5.7	I	0.5	U	0.56	U	0.1	U
MW-3A	B	3.3	I	0.9	I	0.56	U	0.38	I
MW-4A	B	2.7	I	0.5	U	0.56	U	0.19	I
MW-5A	B	2.4	U	0.8	I	0.56	U	0.1	U
MW-7A	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-8A	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-9A	D	2.4	U	7.7		0.56	U	3.1	
MW-10A	D	3.2	I	1.3		0.56	U	0.1	U
MW-10A (R)	D	2.4	U	1.3		0.56	U	0.1	U
MW-11A	D	2.5	I	1.8		0.56	U	0.1	U
MW-12A	D	2.4	I	0.5	U	0.56	U	0.1	U
MW-13A	D	3.8	I	0.5	U	0.56	U	0.1	U
MW-16A	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-17A	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-18A	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-19A	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-20A	D	13	I	0.5	U	22		0.1	U
MW-21A	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-22A	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-23A	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-2B	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-3B	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-4B	B	2.7	I	0.5	U	0.56	U	0.1	U
MW-5B	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-7B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-8B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-9B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-10B	D	3.6	I	0.5	U	0.56	U	0.1	U
MW-11B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-12B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-13B	D	120		0.5	U	0.56	U	0.1	U
MW-16B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-17B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-18B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-19B	D	3.7	I	0.5	U	0.56	U	2.0	
MW-20B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-21B	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-22B	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-23B	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-2C	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-3C	B	3	I	0.5	U	0.56	U	0.1	U
MW-4C	B	3.3	I	0.5	U	0.56	U	0.1	U
MW-5C	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-7C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-8C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-9C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-10C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-11C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-12C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-13C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-16C	D	2.4	U	0.5	U	0.56	U	0.33	I
MW-17C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-18C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-19C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-20C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-21C	D	2.4	U	0.5	U	0.56	U	0.1	U
MW-22C	B	2.4	U	0.5	U	0.56	U	0.1	U
MW-23C	B	2.4	U	0.5	U	0.56	U	0.1	U
Dup-1 (MW-9A)		2.4	U	7.8		0.56	U	2.9	
Dup-2 (MW-16C)		2.4	U	0.5	U	0.56	U	0.3	I

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

[6] (R) = Indicate that resampling was performed.

TABLE 5 (2 of 2)

SUMMARY OF ANALYTICAL RESULTS (VOLATILE COMPOUNDS)
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	cis-1,2-Dichloroethene (ug/L)		m&p-Xylenes (ug/L)		o-Xylene (ug/L)		Toluene (ug/L)		Vinyl Chloride (ug/L)	
GCTL		70		20		20		40		1.0	
MW-2A	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-3A	B	0.12	U	0.44	I	0.24	I	0.52	U	0.25	U
MW-4A	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-5A	B	0.12	U	0.22	U	0.1	U	0.52	U	0.53	I
MW-7A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-8A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-9A	D	2.3		7.5		3.3		1.6		2.1	
MW-10A	D	0.94	I	0.22	U	0.1	U	0.52	U	0.64	I
MW-11A	D	0.59	I	0.53	I	0.1	U	0.52	U	0.74	I
MW-12A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.53	I
MW-13A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-16A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-17A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-18A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-19A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-20A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-21A	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-22A	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-23A	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-2B	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-3B	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-4B	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-5B	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-7B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-8B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-9B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-10B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-11B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-12B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-13B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-16B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-17B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-18B	D	0.12	U	0.22	U	0.1	U	16		0.25	U
MW-19B	D	0.12	U	0.22	U	0.1	U	2.0		0.25	U
MW-20B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-21B	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-22B	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-23B	B	0.12	U	0.22	U	0.1	U	0.58	I	0.25	U
MW-2C	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-3C	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-4C	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-5C	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-7C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-8C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-9C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-10C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-11C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-12C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-13C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-16C	D	0.12	U	0.22	U	0.1	U	5.2		0.25	U
MW-17C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-18C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-19C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-20C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-21C	D	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-22C	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
MW-23C	B	0.12	U	0.22	U	0.1	U	0.52	U	0.25	U
Dup-1 (MW-9A)		2.4		6.8		3.1		1.6		2.2	
Dup-2 (MW-16C)		0.12	U	0.22	U	0.1	U	4.3		0.25	U

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

TABLE 6

SUMMARY OF ANALYTICAL RESULTS (MISCELLANEOUS)
9HT SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Well ID	Type	Ammonia-N (mg/L)		Cloride (mg/L)		Nitrate-N (mg/L)		Total Dissolved Solids (mg/L)	
GCTL		2.8		250		10		500	
MW-2A	B	0.6		30		0.038	U	85	
MW-3A	B	6.1		54		0.038	U	300	
MW-4A	B	4.3		46		0.038	U	200	
MW-5A	B	14		43		0.038	U	210	
MW-7A	D	3.7		27		0.038	U	96	
MW-8A	D	3.0		64		0.038	U	190	
MW-9A	D	16		22		0.038	U	160	
MW-10A	D	12		18		0.038	U	140	
MW-11A	D	8.8		17		0.038	U	200	
MW-12A	D	0.3		9		0.038	U	73	
MW-13A	D	1.5		11		0.038	U	110	
MW-16A	D	0.2		6		0.160	I	52	
MW-17A	D	0.3		10		0.170	I	52	
MW-18A	D	1.2		12		0.160	I	87	
MW-19A	D	3.3		12		0.038	U	230	
MW-20A	D	0.6		6		0.150	I	130	
MW-21A	D	0.02	U	12		0.200		73	
MW-22A	B	0.1		14		0.220		67	
MW-23A	B	0.4		29		0.038	U	130	
MW-2B	B	0.1		11		0.038	U	46	
MW-3B	B	0.2		23		0.038	U	61	
MW-4B	B	6.9		100		0.038	U	660	
MW-5B	B	0.2		14.0		0.038	U	51	
MW-7B	D	0.1		21		0.038	U	68	
MW-8B	D	0.2		9.6		0.038	U	110	
MW-9B	D	0.1		17		0.038	U	67	
MW-10B	D	0.1		11		0.038	U	57	
MW-11B	D	0.1		15		0.038	U	63	
MW-12B	D	0.1		18		0.038	U	60	
MW-13B	D	0.1		13		0.038	U	46	
MW-16B	D	0.3		15		0.038	U	65	
MW-17B	D	0.2		29		0.038	U	65	
MW-18B	D	0.03	I	23		0.038	U	69	
MW-19B	D	0.1		27		0.038	U	34	
MW-20B	D	0.2		29		0.038	U	160	
MW-21B	D	0.2		27		0.150	I	56	
MW-22B	B	0.1		13		0.150	I	62	
MW-23B	B	0.1		17		0.038	U	32	
MW-2C	B	0.1		7.0		0.038	U	34	
MW-3C	B	0.1		7.6		0.038	U	46	
MW-4C	B	0.2		9.4		0.038	U	90	
MW-5C	B	0.1		15		0.038	U	60	
MW-7C	D	0.1		7.6		0.038	U	45	
MW-8C	D	0.1		7.5		0.038	U	44	
MW-9C	D	0.2		9		0.038	U	68	
MW-10C	D	0.2		7.5		0.038	U	39	
MW-11C	D	0.1		17		0.038	U	79	
MW-12C	D	0.1		8.2		0.038	U	41	
MW-13C	D	0.1		12		0.038	U	41	
MW-16C	D	0.2		21		0.038	U	67	
MW-17C	D	0.2		18		0.038	U	78	
MW-18C	D	0.1		21		0.038	U	73	
MW-19C	D	0.2		18		0.038	U	72	
MW-20C	D	0.2		21		0.038	U	75	
MW-21C	D	0.2		20		0.150	I	85	
MW-22C	B	0.1		9.1		0.150	I	300	
MW-23C	B	0.1		8.6		0.038	U	54	
Dup-1 (MW-9A)		16		23		0.038	U	180	
Dup-2 (MW-16C)		0.1		21		0.038	U	41	

Notes:

[1] U = Not detected at value represented

[2] I = Value is estimated to be between method detection limit and practical quantitation limit.

[3] Constituent detections are shown in shaded cells (green color)

[4] Constituent detections exceeding the GCTL are shown in shaded cells (tan color)

[5] Well type: (B) Background well (D) Detection well

Table 7

(1 of 3)

GROUNDWATER LEVEL MEASUREMENTS
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Site Name: JED Solid Waste Management Facility **Sampling Personnel:** Joe Terry
Location: Osceola County, Florida **Field Conditions:** clear, ~78 F
Date: 3-Nov-2008

Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
DP-1	Piezometer Abandoned 03 October 2003					
DP-2	Piezometer Abandoned 03 October 2003					
DP-3	Piezometer Abandoned 16 January 2006					
DP-4	Piezometer Abandoned 16 January 2006					
DP-5	Piezometer Abandoned 10 July 2007					
DP-6	Piezometer Abandoned 10 July 2007					
DP-7	Piezometer Abandoned 10 July 2007					
DP-8	Piezometer Abandoned 10 July 2007					
DP-9	Piezometer Abandoned 10 July 2007					
DP-10	Piezometer Abandoned 10 July 2007					
DP-11	Piezometer Abandoned 10 July 2007					
DP-12	Piezometer Abandoned 10 July 2007					
DP-13	Piezometer Abandoned 11 July 2007					
DP-14	13:20	82.0	4.58	18.6	77.39	
DP-15	13:20	82.0	4.53	53.7	77.45	protective casing lid broken
DP-16	9:48	82.6	3.88	18.5	78.69	protective casing hinge rusted
DP-17	9:48	82.6	3.95	53.7	78.63	protective casing hinge rusted
DP-18	8:25	84.4	5.29	52.9	79.09	protective casing rusted, lid broken
DP-19	8:25	84.3	5.21	18.4	79.13	protective casing lid broken
DP-20	10:25	83.1	3.03	18.4	80.04	protective casing lid broken
DP-21	10:25	83.0	3.30	53.7	79.70	
DP-22	10:05	81.0	4.00	18.6	77.00	protective casing lid broken
DP-23	10:05	81.3	3.81	53.8	77.46	
DP-24	10:20	82.2	3.76	18.6	78.46	protective casing lid broken
SZ-1	Piezometer Abandoned 10 July 2007					
SZ-2	10:25	83.2	5.55	75.4	77.61	protective casing lid broken
SZ-3	10:05	81.3	4.33	78.9	76.94	protective casing lid broken
MW-1A	7:35	95.1	16.02	23.0	79.10	protective casing rusting inside
MW-1B	7:35	95.0	15.88	47.9	79.12	protective casing rusting inside and dented
MW-1C	7:35	95.2	16.15	74.4	79.03	protective casing rusting inside
MW-2A	7:43	95.2	14.88	22.6	80.33	protective casing rusting inside, lid broken
MW-2B	7:43	95.2	14.85	48.1	80.32	protective casing rusting inside, lid broken
MW-2C	7:43	95.3	15.21	68.4	80.11	protective casing rusting inside
MW-3A	7:48	94.6	14.18	22.8	80.46	protective casing rusting inside
MW-3B	7:48	94.7	14.19	47.7	80.49	protective casing rusting inside
MW-3C	7:48	94.7	14.30	68.8	80.36	Lid Broken

Table 7

(2 of 3)

GROUNDWATER LEVEL MEASUREMENTS
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Site Name: JED Solid Waste Management Facility **Sampling Personnel:** Joe Terry
Location: Osceola County, Florida **Field Conditions:** clear, ~78 F
Date: 3-Nov-2008

Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
MW-4A	7:52	95.5	15.61	23.1	79.87	protective casing rusting inside, lid broken
MW-4B	7:52	95.2	15.25	47.4	79.93	protective casing rusting inside, lid broken
MW-4C	7:52	95.4	15.60	72.6	79.79	protective casing rusting inside
MW-5A	7:55	95.3	15.90	22.5	79.42	protective casing rusting inside
MW-5B	7:55	95.3	16.03	47.1	79.27	protective casing rusting inside
MW-5C	7:55	95.4	16.34	73.0	79.05	protective casing rusting inside
MW-6A	8:05	94.7	16.13	22.6	78.59	protective casing rusting inside
MW-6B	8:05	94.6	15.99	47.5	78.61	protective casing rusting inside
MW-6C	8:05	94.6	16.08	73.1	78.50	protective casing rusting inside
MW-7A	11:00	95.5	16.70	23.3	78.78	protective casing rusting inside, lid broken
MW-7B	11:00	95.3	16.48	48.0	78.79	protective casing rusting inside, lid broken
MW-7C	11:00	94.9	16.35	73.4	78.58	protective casing rusting inside, lid broken
MW-8A	10:55	94.7	15.83	22.5	78.84	protective casing rusting inside, lid broken
MW-8B	10:55	94.6	15.79	49.3	78.79	protective casing hinge rusted
MW-8C	10:55	94.5	15.94	73.8	78.56	protective casing hinge rusted
MW-9A	10:50	94.7	16.07	22.4	78.59	protective casing hinge rusted
MW-9B	10:50	94.6	16.08	49.1	78.55	protective casing hinge rusted
MW-9C	10:50	94.5	16.21	74.7	78.33	protective casing rusting inside
MW-10A	10:45	96.3	17.73	22.1	78.52	protective casing hinge rusted
MW-10B	10:45	96.2	17.73	48.3	78.50	protective casing hinge rusted
MW-10C	10:45	96.4	18.05	74.9	78.31	protective casing hinge rusted
MW-11A	10:42	93.6	15.34	22.8	78.22	protective casing rusting inside
MW-11B	10:42	93.6	15.38	47.9	78.21	protective casing rusting inside
MW-11C	10:42	93.7	15.47	73.6	78.18	protective casing rusting inside
MW-12A	10:37	95.1	16.67	23.0	78.43	protective casing rusting inside
MW-12B	10:37	95.0	16.72	49.0	78.29	protective casing rusting inside
MW-12C	10:37	95.1	16.84	73.6	78.26	protective casing rusting inside
MW-13A	10:30	95.2	16.65	22.5	78.54	protective casing rusting inside
MW-13B	10:30	95.1	16.58	47.3	78.54	protective casing rusting inside
MW-13C	10:30	95.0	16.57	73.0	78.47	protective casing rusting inside
MW-14A	Monitoring Well Abandoned 10 July 2007					
MW-14B	Monitoring Well Abandoned 10 July 2007					
MW-14C	Monitoring Well Abandoned 10 July 2007					
MW-15A	Monitoring Well Abandoned 10 July 2007					
MW-15B	Monitoring Well Abandoned 10 July 2007					
MW-15C	Monitoring Well Abandoned 10 July 2007					

Table 7

(3 of 3)

GROUNDWATER LEVEL MEASUREMENTS
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Site Name: JED Solid Waste Management Facility
Location: Osceola County, Florida
Date: 3-Nov-2008
Sampling Personnel: Joe Terry
Field Conditions: clear, ~78 F

Well ID	Time	TOC Elevation	Depth to Water (ft)	Well Depth (ft)	GW Elevation	Field Observations
MW-16A	9:10	88.69	9.04	18.63	79.65	
MW-16B	9:10	88.73	9.43	38.09	79.30	
MW-16C	9:10	88.77	9.75	67.65	79.02	
MW-17A	9:05	88.86	9.30	19.88	79.56	
MW-17B	9:05	88.79	9.37	40.18	79.42	
MW-17C	9:05	88.85	9.66	67.33	79.19	
MW-18A	9:00	87.56	8.73	17.70	78.83	
MW-18B	9:00	87.43	8.60	37.80	78.83	
MW-18C	9:00	87.42	8.60	67.15	78.82	
MW-19A	8:40	87.54	8.33	17.65	79.21	
MW-19B	8:40	87.64	8.41	37.73	79.23	
MW-19C	8:40	87.44	8.28	66.70	79.16	
MW-20A	8:35	87.12	7.39	17.93	79.73	
MW-20B	8:35	87.27	7.58	37.76	79.69	
MW-20C	8:35	87.35	7.96	66.75	79.39	
MW-21A	8:30	87.20	8.07	18.04	79.13	
MW-21B	8:30	87.23	8.11	37.63	79.12	
MW-21C	8:30	87.13	8.19	62.57	78.94	
MW-22A	8:15	87.71	9.99	18.00	77.72	
MW-22B	8:15	87.69	10.04	37.96	77.65	
MW-22C	8:15	87.55	9.81	67.25	77.74	
MW-23A	7:30	97.90	23.09	27.75	74.81	
MW-23B	7:30	97.91	23.06	42.75	74.85	
MW-23C	7:30	97.93	23.05	67.05	74.88	

Table 8

SUMMARY OF SURFACE WATER FIELD MEASUREMENTS AND ANALYTICAL RESULTS
9TH SEMI-ANNUAL WATER QUALITY MONITORING REPORT
J.E.D. SOLID WASTE MANAGEMENT FACILITY

Parameter	Analytical Method	Units	FL-SWQC Class III	Monitoring Location	
				SW-3	SW-4
Arsenic	6020	ug/L	-	0.61	ND
Barium	6020	ug/L	-	11	12
COD	410.2	mg/L	-	74	76
Fecal Coliform	SM 9222D	# /100mL	800	23	460
Hardness as CaCO3	6010B	mg/L	-	15	13
Iron	6010B	mg/L	1	0.742	0.817
Nitrogen, Total as N	351.2/300.0	mg/L	-	0.78	0.83
Organic Carbon, Total	415.1	mg/L	-	29	31
Phosphorus, Total	365.1	mg/L	-	0.03	0.04
Total Dissolved Solids	160.1	mg/L	-	87	84
Dissolved Oxygen	Field Measurement	mg/L	5	6.8	5.36
pH	Field Measurement	std units	6-8.5	5.06	4.7
Temperature	Field Measurement	°C	-	17.56	18.00
Conductivity	Field Measurement	uS/cm	< 50% above background or 1275, whichever is >	56	55
Turbidity	Field Measurement	NTU	< 29 above background	0.2	0.2
Water Elevation (1)	Field Measurement	ft	-	73.30	77.55

Notes (1): Surface Water Elevations referenced to NGVD 1929

Table 9

SUMMARY OF FIELD MEASUREMENTS AND ANALYTICAL RESULTS FOR LEACHATE SAMPLES
9TH SEMI-ANNUAL WATER QUALITY MONITORING EVENT

Parameter	Units	Regulatory Level [1]	Monitoring Locations									
			L-1		L-2		L-3		L-4		L-5	
FIELD MEASUREMENTS												
Temperature	°C		28.90		28.79		27.66		33.05		29.86	
pH	Std Units		7.3		6.2		6.5		7.2		5.2	
Conductivity	mS/cm		20.800		11.820		3.415		15.800		6.37	
Turbidity	NTU		5.0		8.3		34.7		0.1		87.7	
ORP	mV		-194.8		-215.7		-184.1		-111.5		-89.7	
Dissolved Oxygen	mg/L		0.57		2.77		1.06		0.85		2.68	
ANALYTICAL RESULTS												
1,4-Dichlorobenzene	UG/L		7.5	I	5.7	I	2.8	U	12		6.9	I
2-Butanone (MEK)	UG/L	200,000	5.6	U	360		580		5.6	U	24000	
4-methyl-2-pentanone (MIBK)	UG/L		3.7	U	28	I	7.4	U	3.7	U	260	
4-Methylphenol	UG/L		2.4	I	0.86	U	110		2	I	1900	
Acetone	UG/L		31	I	300	I	420	I	50	I	11000	
Alkalinity, Total (as CaCO3)	MG/L		2800		570		720		2600		880	
AMMONIA-N	MG/L		720		370		190		780		210	
Antimony	UG/L		24		10		5		39		3.4	
Arsenic	UG/L	5,000	24		39		13		36		13	
Barium	UG/L	100,000	912		305		126		469		244	
Benzene	UG/L	500	5.2	U	11		12	I	5.7	I	16	
Beryllium	UG/L		1.9		0.4	I	0.3	I	1.9		0.4	I
bis(2-chloroethoxy)methane	UG/L		1.1	U	13		1.1	U	1.2	U	26	U
Cadmium	UG/L	1,000	2.8		0.99		0.72		6.1		0.12	U
Chloride	MG/L		4100		4700		930		2300		830	
Chromium	UG/L	5,000	314		97		46		538		24	
Cobalt	UG/L		16		4.6		5.1		21		2	
Copper	UG/L		11		6.8		4.7		46		7.6	
Cyanide, Total	MG/L		0.02		0.012		0.013		0.038		0.004	U
Ethylbenzene	UG/L		27		38		30		22		30	
Ethylene dichloride	UG/L		1.5	U	1.5	U	3	U	1.5	U	40	
Iron	UG/L		5150		4370		3380		2130		18900	
Lead	UG/L	5,000	73		6.8		5.1		49		2.4	
m&p-Xylenes	UG/L		30		40		35	I	26		39	
Nickel	UG/L		252		58		37		110		58	
o-Xylene	UG/L		16		23		16	I	15		17	
Selenium	UG/L	1,000	34		48		18		85		5.1	
Sodium	MG/L		2190		1940		481		1290		475	
Sulfide	MG/L		4.4		15		4.9		5.2		13	
Tin	UG/L		8.3		1.4	I	0.5	I	13		0.8	I
Toluene	UG/L		13		48		54		27		490	
Total Dissolved Solids	MG/L		13000		8400		2700		11000		3700	
Vanadium	UG/L		472		247		120		691		64	
Zinc	UG/L		26		12		54		39		27	

Notes:

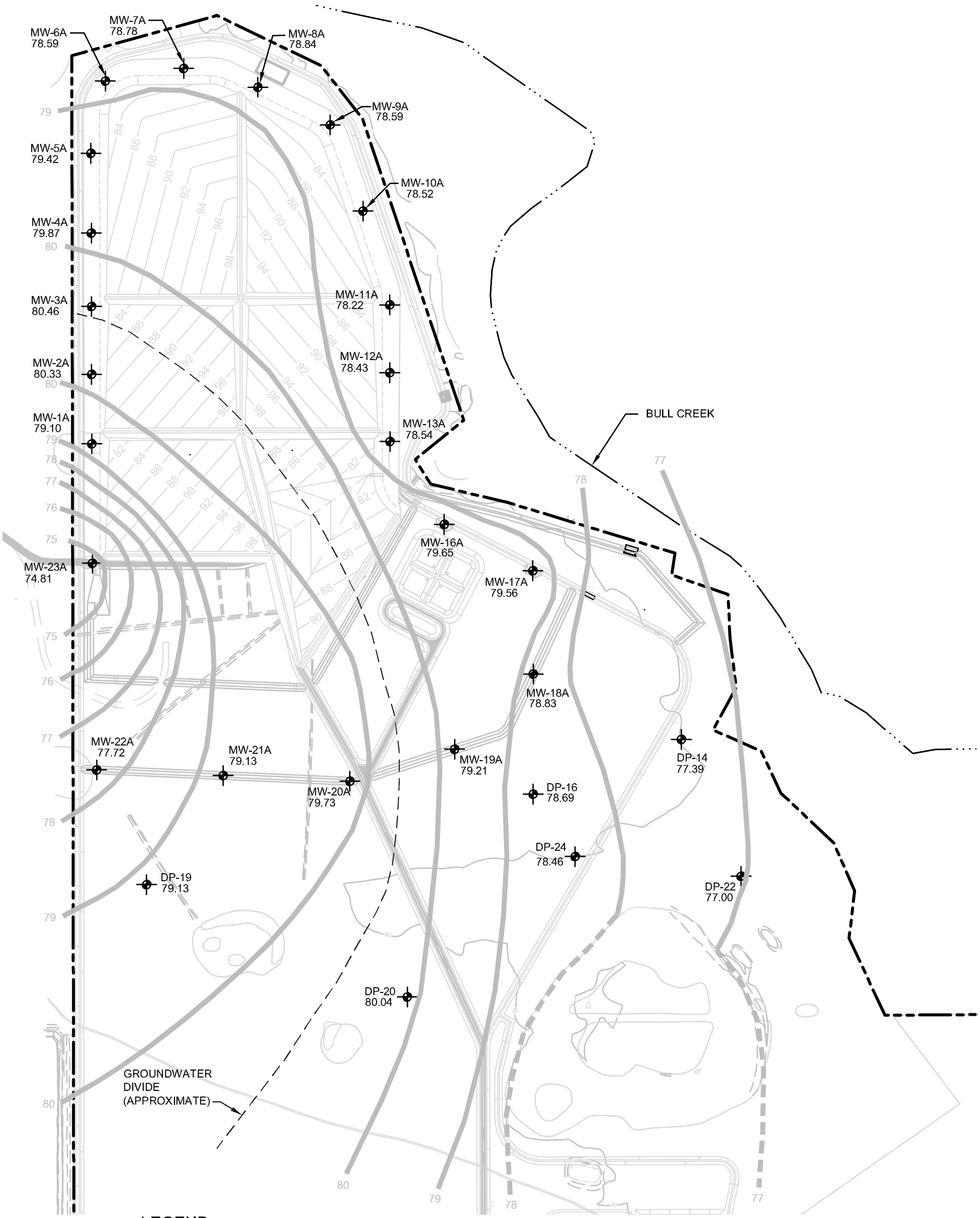
[1] Maximum concentration of contaminants for the toxicity characteristic listed in 40 CFR 261.24.

U = Not detected at value represented

I = Value is estimated to be between method detection limit and practical quantitation limit.

Only parameters with detections above the Method Reporting Limit are shown.

9th MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY
WACS FACILITY ID 89455
"A"-ZONE (SHALLOW) WELLS - WATER LEVEL CONTOURS
FIGURE 1



LEGEND

76.27 MW-7A	MONITORING WELL GROUNDWATER ELEVATION*
75.85 DP-16	PIEZOMETER GROUNDWATER ELEVATION*
76.5	GROUNDWATER CONTOUR

* WATER LEVEL MEASUREMENTS FROM 3 NOVEMBER 2008 SITE WIDE SURVEY

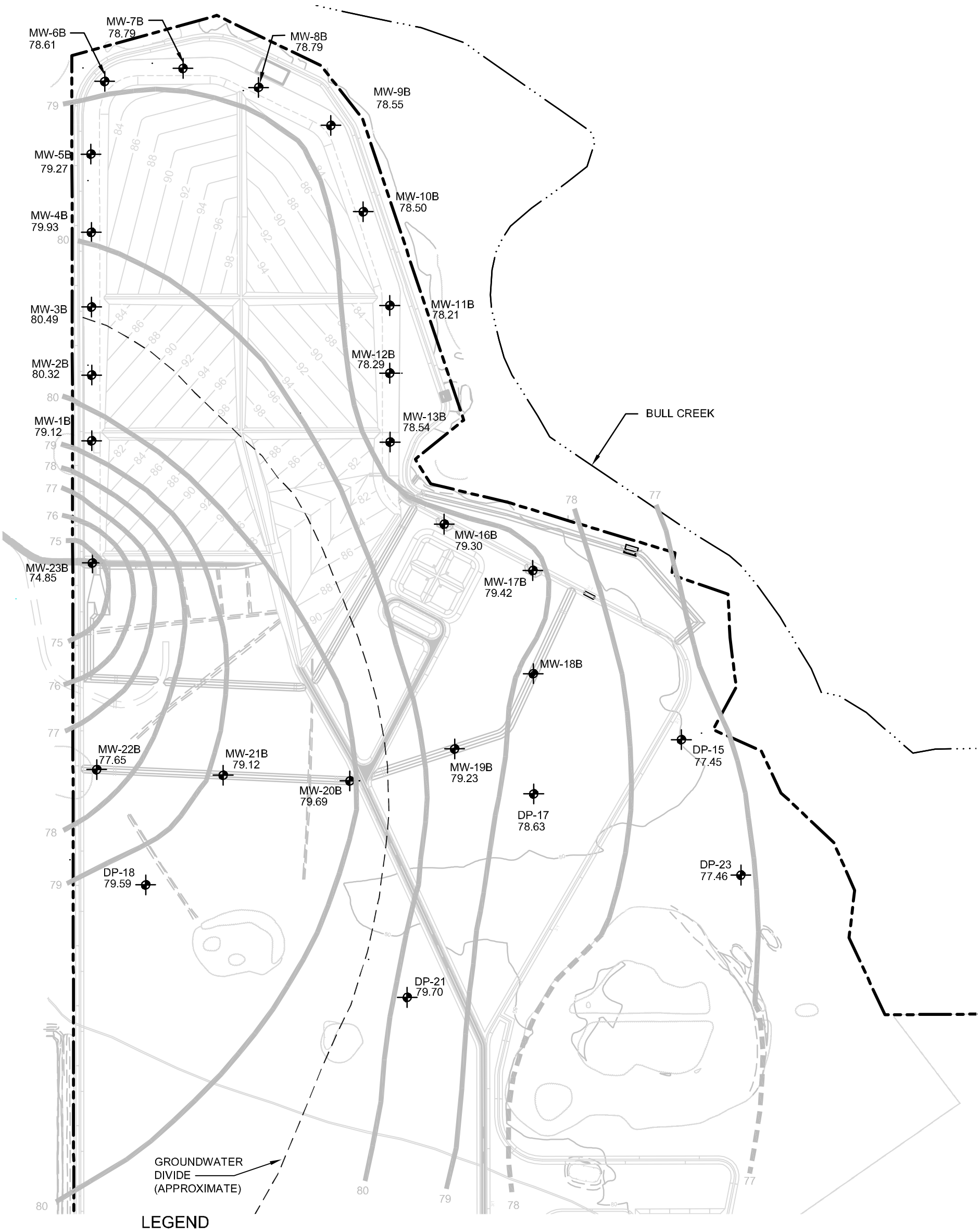
Geosyntec consultants

TAMPA, FL

DATE:	JANUARY 2009	FILE NO.	FQ1512.02F01
PROJECT NO.	FQ1512	FIGURE NO.	1

I:_CADD (PROJECTS)\J\J.E.D\FIGURES\FQ1512\FQ1512.02\FQ1512.02F01.DWG (5 December 2006) cvickers

9th MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY
WACS FACILITY ID 89455
"B"-ZONE (INTERMEDIATE) WELLS - WATER LEVEL CONTOURS
FIGURE 2



LEGEND

76.26 MW-7B	MONITORING WELL GROUNDWATER ELEVATION*
75.81 DP-17	PIEZOMETER GROUNDWATER ELEVATION*
76.5	GROUNDWATER CONTOUR

* WATER LEVEL MEASUREMENTS FROM 3 NOVEMBER 2008 SITE WIDE SURVEY

0 250' 500' 1000'

SCALE: 1" = 500'

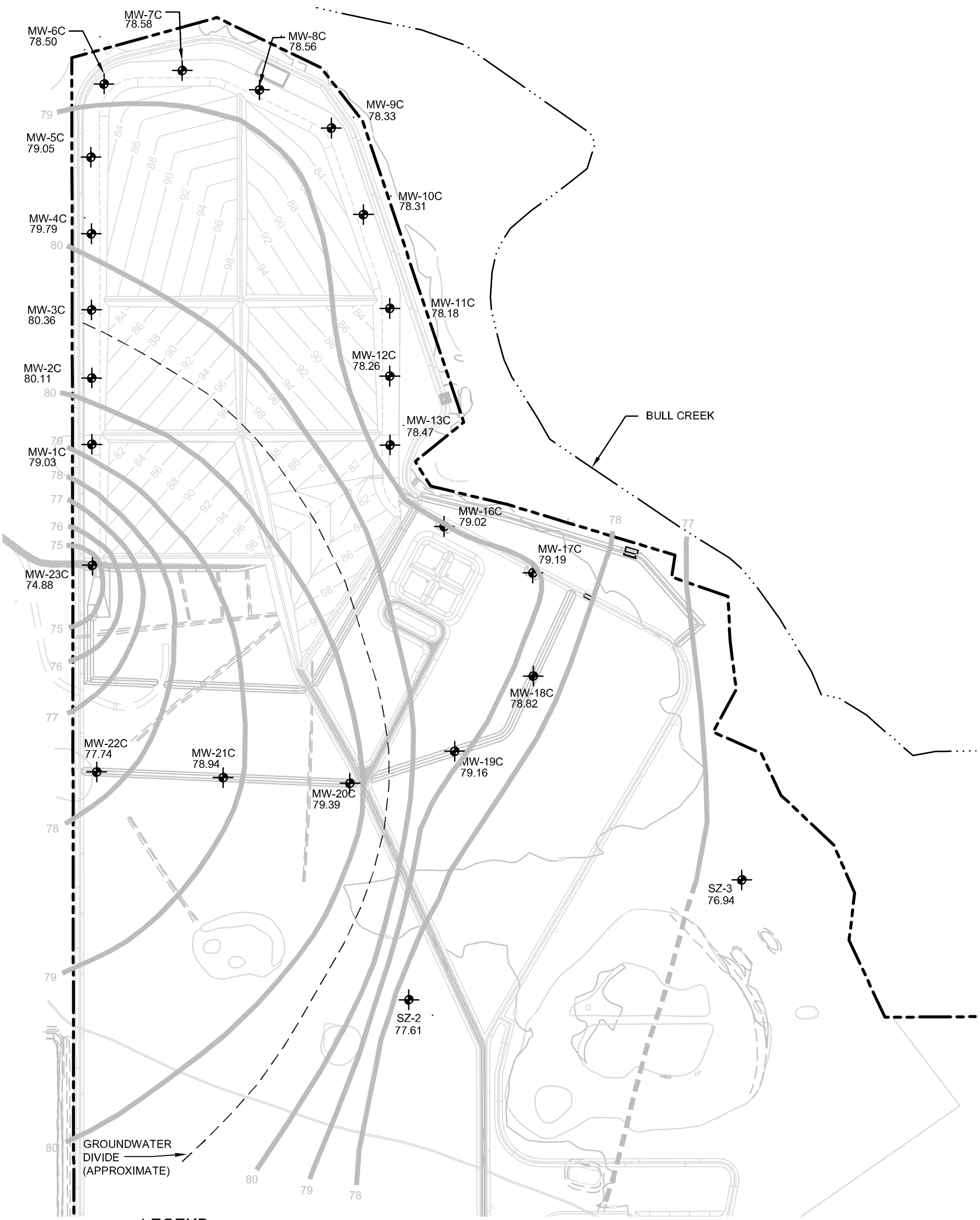
Geosyntec consultants

TAMPA, FL

DATE:	JANUARY 2008	FILE NO.	FQ1512.02F02
PROJECT NO.	FQ1512	FIGURE NO.	2

I:_CADD (PROJECTS)\J.E.D\FIGURES\FQ1512\FQ1512.02\FQ1512.02F02.DWG (24 June 2008) cvickers

9th MONITORING EVENT
J.E.D. SOLID WASTE MANAGEMENT FACILITY
WACS FACILITY ID 89455
"C"-ZONE (DEEP) WELLS - WATER LEVEL CONTOURS
FIGURE 3



LEGEND

76.26 MW-7B	MONITORING WELL GROUNDWATER ELEVATION*
75.81 DP-17	PIEZOMETER GROUNDWATER ELEVATION*
76.5	GROUNDWATER CONTOUR

* WATER LEVEL MEASUREMENTS FROM 3 NOVEMBER 2008 SITE WIDE SURVEY

0 250' 500' 1000'

SCALE: 1" = 500'

Geosyntec consultants

TAMPA, FL

DATE:	JANUARY 2008	FILE NO.	FQ1512.02F03
PROJECT NO.	FQ1512	FIGURE NO.	3

I:_CADD (PROJECTS)\J\J.E.D\FIGURES\FQ1512\FQ1512.02\FQ1512.02F03.DWG (24 June 2008) cvickers

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-2A WACS ID: 1990.3 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1325 Time @ End of Purging: 1535 Total Purging Time: 130 min

Depth of Pump or Intake Tubing: 19.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal) JT 11-6-08	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1520	~~2.75~~ 5.75	~~2.75~~ 5.75	26.34	5.44	0.134	1.4	-127.7	0.19	clear	15.38	
1527	0.35	~~3.10~~ 6.10	26.32	5.30	0.134	1.1	-127.9	0.18	clear	15.38	
1532	0.25	~~3.35~~ 6.35	26.30	5.31	0.134	1.1	-127.5	0.18	clear	15.38	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-2A Time Collected: 1535 Comments: ___

Well Inspection

Field Conditions/Observations: p.cloudy, ~79°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ____ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ____ No Well Cap: _X_ Yes ____ No Well Cap: _X_ Tight _____ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.20 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 22.6 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 15.38 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.18 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ____ No Describe: sour

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (22.6 - 15.2) x 0.16 = 1.2 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 3.5 gallons DT 11-6-08

Purge Water Contained? ____ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ____ Yes ____ No; Purge Water Discharged to Ground? _X_ Yes ____ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; _____ Blind Duplicate; _____ EQ. Blank; _____ Field Blank; _____ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ____ Yes _X_ No Filter Size: _____ µm; _____ All Analyses; _____ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

____ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-2B WACS ID: 19904 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.50 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 1325 Time @ End of Purging: 1615 Total Purging Time: 170 min

Depth of Pump or Intake Tubing: 43 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1605	80.00	80.00	24.05	4.47	0.048	0.4	99.8	0.51	clear	15.45	
1608	1.50	81.50	24.06	4.45	0.048	0.5	100.5	0.48	clear	15.45	
1612	2.00	83.50	24.06	4.45	0.048	0.2	100.4	0.44	clear	15.45	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-2B Time Collected: 1615 Comments: initial turbidity 24 NTU

Well Inspection

Field Conditions/Observations: p. cloudy, ~79°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _15.15_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _48.3_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _15.45_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _0.3_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (_48.3_ - _15.15_) x _0.16_ = _5.3_ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* _0.0_ gal + (0.041 x *(D)* _0.375_ in. x *(D)* _0.375_ in. x *(L)* _55_ ft.)+ *(Fc)* _0.25_ gal = _0.6_ gal

3 Well/Equipment Volumes = _1.8_ gallons Purged Volume (actual): _85.0_ gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: _0.1_ gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-2C WACS ID: 19905 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.07 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1325 Time @ End of Purging: 1545 Total Purging Time: 140 min

Depth of Pump or Intake Tubing: 64 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1522	8.19	8.19	24.98	5.41	0.043	0.7	77.7	0.79	clear	15.77	
1530	0.56	8.75	24.90	5.26	0.043	0.4	78.0	0.68	clear	15.77	
1533	0.21	8.96	24.88	5.30	0.043	0.6	81.2	0.66	clear	15.77	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-2C Time Collected: 1545 Comments: ___

Well Inspection

Field Conditions/Observations: p-cloudy, ~79°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.55 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 68.4 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 15.77 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.22 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (68.4 - 15.55) x 0.16 = 8.5 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 75 ft.)+ *(Fc)* 0.25 gal = 0.45 gal

3 Well/Equipment Volumes = 1.35 gallons Purged Volume (actual): 9.8 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.07 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-3A WACS ID: 19906 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0945 Time @ End of Purging: 1057 Total Purging Time: 72 min

Depth of Pump or Intake Tubing: 19 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1015	1.50	1.50	25.82	4.92	0.310	4.3	-10.8	0.67	clear	14.81	
1022	0.35	1.85	25.79	4.89	0.326	2.7	-11.8	0.53	clear	14.81	
1050	1.40	3.25	26.05	4.78	0.422	1.0	-10.1	0.30	clear	14.81	
1053	0.15	3.40	26.09	4.81	0.426	1.2	-10.1	0.29	clear	14.81	
1057	0.20	3.60	26.05	4.81	0.430	0.9	-9.1	0.27	clear	14.81	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-3A Time Collected: 1100 Comments: ___

Well Inspection

Field Conditions/Observations: clear, ~72°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _14.70_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _22.8_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _14.81_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _0.11_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: _rancid_

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (_22.8_ - _14.70_) x _0.16_ = _1.3_ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* _0.0_ gal + (0.041 x *(D)* _0.25_ in. x *(D)* _0.25_ in. x *(L)* _28_ ft.)+ *(Fc)* _0.25_ gal = _0.32_ gal

3 Well Equipment Volumes = _1.0_ gallons Purged Volume (actual): _3.6_ gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: _0.05_ gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: _8260, EDB, T. Metals, NH_3, TDS, CL, NO_3_

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: _Columbia Analytical Services_

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-3B WACS ID: 19907 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.60 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0945 Time @ End of Purging: 1118 Total Purging Time: 93 min

Depth of Pump or Intake Tubing: 43 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1055	42.00	42.00	25.27	5.37	0.099	1.0	-127.2	0.29	Clear	15.04	
1110	9.00	51.00	25.37	5.16	0.100	0.5	-120.8	0.15	Clear	15.04	
1115	3.00	54.00	25.31	5.15	0.099	0.4	-120.3	0.13	Clear	15.04	
1118	1.80	55.80	25.31	5.12	0.099	0.7	-120.5	0.13	Clear	15.04	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-3B Time Collected: 1120 Comments:

Well Inspection

Field Conditions/Observations: Clear, ~72°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ____ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ____ No Well Cap: _X_ Yes ____ No Well Cap: _X_ Tight ____ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _14.75_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _47.6_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _15.04_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _0.29_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ____ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (_47.6_ - _14.75_) x _0.16_ = _5.3_ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* _0.0_ gal + (0.041 x *(D)* _0.375_ in. x *(D)* _0.375_ in. x *(L)* _55_ ft.)+ *(Fc)* _0.25_ gal = _0.6_ gal

3 Well/Equipment Volumes = _1.8_ gallons Purged Volume (actual): _55.8_ gallons

Purge Water Contained? ____ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ____ Yes ____ No; Purge Water Discharged to Ground? _X_ Yes ____ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: _0.09_ gpm

QA Sample Collected ___ Yes _X_ No; ____ Blind Duplicate; ____ EQ. Blank; ____ Field Blank; ____ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ____ Yes _X_ No Filter Size: _____ µm; ____ All Analyses; ____ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: _8260, EDB, T. Metals, NH_3, TDS, CL, NO_3_

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

____ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: _Columbia Analytical Services_

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-3C WACS ID: 19908 Purge Method: Pump ☒ Bailer ☐ Pump Type: __ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.07 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0945 Time @ End of Purging: 1040 Total Purging Time: 55 min

Depth of Pump or Intake Tubing: 64 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1020	2.45	2.45	25.08	5.64	0.053	1.7	-120.8	0.47	clear	14.97	
1025	0.35	2.80	25.22	5.54	0.052	1.4	-119.0	0.43	clear	14.99	
1030	0.35	3.15	25.30	5.65	0.053	1.9	-127.0	0.36	clear	14.99	
1035	0.35	3.50	25.27	5.57	0.053	1.6	-124.4	0.35	clear	14.99	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-3C Time Collected: 1040 Comments: _____

Well Inspection

Field Conditions/Observations: Clear, ~72°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 14.80 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 68.7 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 14.99 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.19 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (68.7 - 14.80) x 0.16 = 8.6 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 75 ft.)+ *(Fc)* 0.25 gal = 0.45 gal

3 Well/Equipment Volumes = 1.4 gallons Purged Volume (actual): 3.85 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.07 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-4A WACS ID: 19909 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II/ PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A L

Water Level Meter: Solinst Time @ Start of Purging: 0745 Time @ End of Purging: 0800 Total Purging Time: 45 min

Depth of Pump or Intake Tubing: 19.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0745	1.50	1.50	24.06	5.08	0.261	5.2	-169.6	0.28	clear	15.95	
0752	0.35	1.85	24.10	5.07	0.261	3.8	-171.4	0.25	clear	15.96	
0758	0.30	2.15	24.12	5.06	0.261	2.9	-175.9	0.23	clear	15.96	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-4A Time Collected: 0800 Comments: ___

Well Inspection

Field Conditions/Observations: Clear, ~58°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ____ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ____ No Well Cap: _X_ Yes ____ No Well Cap: _X_ Tight ____ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.86 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 23.1 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 15.96 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.10 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ____ No Describe: Sour

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (23.1 - 15.86) x 0.16 = 1.2 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 27 ft.)+ *(Fc)* 0.25 gal = 0.32 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 2.25 gallons

Purge Water Contained? ____ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ____ Yes ____ No; Purge Water Discharged to Ground? _X_ Yes ____ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: _____ gpm

QA Sample Collected ___ Yes _X_ No; ____ Blind Duplicate; ____ EQ. Blank; ____ Field Blank; ____ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ____ Yes _X_ No Filter Size: _____ µm; ____ All Analyses; ____ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

____ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-4B WACS ID: 19910 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.06 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0715 Time @ End of Purging: 0815 Total Purging Time: 60 min

Depth of Pump or Intake Tubing: 43 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0750	2.10	2.10	23.80	3.48	0.838	0.8	63.2	0.46	clear	15.70	
0754	0.24	2.34	23.79	3.48	0.841	0.4	66.9	0.39	clear	15.70	
0813	1.14	3.48	23.85	3.47	0.844	0.1	78.2	0.27	clear	15.70	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-4B Time Collected: 0815 Comments: ___

Well Inspection

Field Conditions/Observations: Clear, ~58°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.62 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 47.4 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 15.70 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.08 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: slight sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (47.4 - 15.62) x 0.16 = 5.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 53 ft.)+ *(Fc)* 0.25 gal = 0.4 gal

3 Well/Equipment Volumes = 1.2 gallons Purged Volume (actual): 3.6 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.06 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-4C WACS ID: 19911 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.70 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0725 Time @ End of Purging: 0855 Total Purging Time: 90 min

Depth of Pump or Intake Tubing: 68 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0845	56.00	56.00	23.74	5.33	0.093	21.0	49.7	0.42	clear	~~18.32~~ 17.30	JT 11-6-08
0851	4.20	60.20	23.75	5.33	0.093	19.8	51.2	0.34	clear	17.30	
0855	2.80	63.00	23.74	5.33	0.093	17.7	51.7	0.32	clear	17.30	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-4C Time Collected: 0900 Comments: Initial turbidity 162 NTU

Well Inspection

Field Conditions/Observations: clear, ~58°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01 ft)

Depth to Water (initial): 15.93 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 72.5 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 17.30 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.37 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (72.5 - 15.93) x 0.16 = 9.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88 PT 11-6-08

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 85 ft.)+ *(Fc)* 0.25 gal = 0.74 gal

3 Well/Equipment Volumes = 2.22 gallons Purged Volume (actual): 63.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.12 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eun

Station (Well No.): MW-5A WACS ID: 19912 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1425 Time @ End of Purging: 1500 Total Purging Time: 35 min

Depth of Pump or Intake Tubing: 19.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1450	1.25	1.25	25.71	4.90	0.235	10.8	-129.1	0.33	amber	16.11	
1455	0.25	1.50	25.61	4.87	0.235	10.3	-130.7	0.29	amber	16.11	
1500	0.25	1.75	25.62	4.86	0.235	10.4	-132.4	0.26	amber	16.11	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5A Time Collected: 1505 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~65°F

Well Inspection:

Well Type: ___ Flush Mount X Stick Up ___ Other Well Size (ID): 2 in. ___ Steel X PVC

Condition (locked, damaged, etc.): _____

Well Labeled: X Yes ___ No Well Cap: X Yes ___ No Well Cap: X Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.85 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 22.5 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.11 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.26 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: X Yes ___ No Describe: rancid

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (22.5 - 15.85) x 0.16 = 1.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 32 ft.)+ *(Fc)* 0.25 gal = 0.35 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 1.75 gallons

Purge Water Contained? ___ Yes X No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? X Yes ___ No

Sampling Method: ___ Bailer X Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes X No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes X No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: 6 40 ml vials ___ 1 liter amber glass 2 125 ml plastic ___ 250 ml plastic 1 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier X UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eng

Station (Well No.): MW-5B WACS ID: 19913 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.08 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A

Water Level Meter: Solinst Time @ Start of Purging: 1510 Time @ End of Purging: 1535 Total Purging Time: 25 min

Depth of Pump or Intake Tubing: 42 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1525	1.20	1.20	24.67	4.66	0.062	0.3	-126.3	0.46	clear	16.20	
1530	0.40	1.60	24.62	4.65	0.062	0.8	-126.4	0.42	clear	16.20	
1535	0.40	2.00	24.65	4.69	0.062	0.6	-129.0	0.37	clear	16.20	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5B Time Collected: 1540 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-4C WACS ID: 19911 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.70 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0725 Time @ End of Purging: 0855 Total Purging Time: 90 min

Depth of Pump or Intake Tubing: 68 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0845	56.00	56.00	23.74	5.33	0.093	21.0	49.7	0.42	clear	~~18.32~~ 17.30	JT 11-6-08
0851	4.20	60.20	23.75	5.33	0.093	19.8	51.2	0.34	clear	17.30	
0855	2.80	63.00	23.74	5.33	0.093	17.7	51.7	0.32	clear	17.30	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-4C Time Collected: 0900 Comments: Initial turbidity 162 NTU

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eun

Station (Well No.): MW-5A WACS ID: 19912 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1425 Time @ End of Purging: 1500 Total Purging Time: 35 min

Depth of Pump or Intake Tubing: 19.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1450	1.25	1.25	25.71	4.90	0.235	10.8	-129.1	0.33	amber	16.11	
1455	0.25	1.50	25.61	4.87	0.235	10.3	-130.7	0.29	amber	16.11	
1500	0.25	1.75	25.62	4.86	0.235	10.4	-132.4	0.26	amber	16.11	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5A Time Collected: 1505 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eng

Station (Well No.): MW-5B WACS ID: 19913 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.08 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A

Water Level Meter: Solinst Time @ Start of Purging: 1510 Time @ End of Purging: 1535 Total Purging Time: 25 min

Depth of Pump or Intake Tubing: 42 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1525	1.20	1.20	24.67	4.66	0.062	0.3	-126.3	0.46	clear	16.20	
1530	0.40	1.60	24.62	4.65	0.062	0.8	-126.4	0.42	clear	16.20	
1535	0.40	2.00	24.65	4.69	0.062	0.6	-129.0	0.37	clear	16.20	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5B Time Collected: 1540 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~70°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.06 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 47.1 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.20 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.14 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (47.1 - 16.06) x 0.16 = 5.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 48 ft.)+ *(Fc)* 0.25 gal = 0.40 gal

3 Well Equipment Volumes = 1.20 gallons Purged Volume (actual): 2.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.08 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 6 November 2008 Sampled By: J. Terry

Station (Well No.): MW-4C WACS ID: 19911 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.70 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0725 Time @ End of Purging: 0855 Total Purging Time: 90 min

Depth of Pump or Intake Tubing: 68 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0845	56.00	56.00	23.74	5.33	0.093	21.0	49.7	0.42	clear	~~18.32~~ 17.30	JT 11-6-08
0851	4.20	60.20	23.75	5.33	0.093	19.8	51.2	0.34	clear	17.30	
0855	2.80	63.00	23.74	5.33	0.093	17.7	51.7	0.32	clear	17.30	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-4C Time Collected: 0900 Comments: Initial turbidity 162 NTU

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eun

Station (Well No.): MW-5A WACS ID: 19912 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1425 Time @ End of Purging: 1500 Total Purging Time: 35 min

Depth of Pump or Intake Tubing: 19.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1450	1.25	1.25	25.71	4.90	0.235	10.8	-129.1	0.33	amber	16.11	
1455	0.25	1.50	25.61	4.87	0.235	10.3	-130.7	0.29	amber	16.11	
1500	0.25	1.75	25.62	4.86	0.235	10.4	-132.4	0.26	amber	16.11	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5A Time Collected: 1505 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eng

Station (Well No.): MW-5B WACS ID: 19913 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.08 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A

Water Level Meter: Solinst Time @ Start of Purging: 1510 Time @ End of Purging: 1535 Total Purging Time: 25 min

Depth of Pump or Intake Tubing: 42 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1525	1.20	1.20	24.67	4.66	0.062	0.3	-126.3	0.46	clear	16.20	
1530	0.40	1.60	24.62	4.65	0.062	0.8	-126.4	0.42	clear	16.20	
1535	0.40	2.00	24.65	4.69	0.062	0.6	-129.0	0.37	clear	16.20	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5B Time Collected: 1540 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eun

Station (Well No.): MW-5C WACS ID: 19914 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II/ PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1430 Time @ End of Purging: 1520 Total Purging Time: 50 min

Depth of Pump or Intake Tubing: 68 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
14:50	1.0	1.0	24.31	4.91	0.070	4.1	-82.3	0.59	Clear	16.59	
15:00	0.5	1.5	24.30	4.90	0.071	3.8	-82.4	0.47	Clear	16.59	
15:10	0.5	2	24.25	4.91	0.071	3.5	-82.1	0.43	Clear	16.60	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5C Time Collected: 1520 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry, J. Eun

Station (Well No.): MW-5C WACS ID: 19914 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II/ PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1430 Time @ End of Purging: 1520 Total Purging Time: 50 min

Depth of Pump or Intake Tubing: 68 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
14:50	1.0	1.0	24.31	4.91	0.070	4.1	-82.3	0.59	Clear	16.59	
15:00	0.5	1.5	24.30	4.90	0.071	3.8	-82.4	0.47	Clear	16.59	
15:10	0.5	2	24.25	4.91	0.071	3.5	-82.1	0.43	Clear	16.60	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-5C Time Collected: 1520 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~65°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.36 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.0 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.60 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.24 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.0 - 16.36) x 0.16 = 9.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 75 ft.)+ *(Fc)* 0.25 gal = 0.45 gal

3 Well/Equipment Volumes = 1.35 gallons Purged Volume (actual): 2.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-7A WACS ID: 19918 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A L

Water Level Meter: Solinst Time @ Start of Purging: 1200 Time @ End of Purging: 1305 Total Purging Time: 65 min

Depth of Pump or Intake Tubing: 20 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1250	2.50	2.50	24.37	4.98	0.160	0.3	-137.0	0.37	clear	16.90	
1255	0.25	2.75	24.28	4.95	0.159	0.5	-138.0	0.31	clear	16.90	
1300	0.25	3.00	24.29	4.92	0.159	0.4	-137.8	0.30	clear	16.90	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-7A Time Collected: 1305 Comments: _____

Well Inspection

Field Conditions/Observations: overcast, ~65°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.78 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 23.3 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.90 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.12 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: X Yes ___ No Describe: sulfur like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (23.3 - 16.78) x 0.16 = 1.04 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 32 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 3.25 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer X Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes X No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-7B WACS ID: 19919 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II / RA Hurricane Purge Rate: 0.50 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1155 Time @ End of Purging: 1355 Total Purging Time: 120

Depth of Pump or Intake Tubing: 43 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1330	47.50	47.50	24.08	4.98	0.089	4.7	-141.3	0.29	clear	18.23	
1345	7.50	55.00	24.10	4.93	0.089	3.5	-140.5	0.13	clear	18.27	
1350	2.50	57.50	24.05	4.94	0.089	3.2	-140.9	0.13	clear	18.27	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-7B Time Collected: 1355 Comments: initial turbidity 56 NTU

Well Inspection

Field Conditions/Observations: overcast, ~65°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.58 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 47.5 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 18.27 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.69 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (47.5 - 16.58) x 0.16 = 5.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 52 ft.)+ *(Fc)* 0.25 gal = 0.55 gal

3 Well Equipment Volumes = 1.65 gallons Purged Volume (actual): 60.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-7C WACS ID: 19920 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II/ PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 1210 Time @ End of Purging: 1315 Total Purging Time: 65 min

Depth of Pump or Intake Tubing: 68 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1245	1.75	1.75	23.45	4.98	0.051	2.1	-83.6	0.72	clear	16.51	
1252	0.35	2.10	23.43	4.98	0.051	2.3	-83.7	0.63	clear	16.51	
1300	0.40	2.50	23.40	4.98	0.051	2.2	-83.1	0.51	clear	16.51	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-7C Time Collected: 1315 Comments: ___

Well Inspection

Field Conditions/Observations: overcast ~65°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.44 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.3 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.51 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.07 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.3 - 16.44) x 0.16 = 9.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 75 ft.)+ *(Fc)* 0.25 gal = 0.45 gal

3 Well Equipment Volumes = 1.35 gallons Purged Volume (actual): 3.25 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-8A WACS ID: 19921 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0955 Time @ End of Purging: 1053 Total Purging Time: 58 min

Depth of Pump or Intake Tubing: 19.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1015	1.00	1.00	24.62	4.40	0.287	2.1	-96.7	0.46	clear	16.43	
1030	0.75	1.75	24.65	4.37	0.282	1.0	-101.5	0.38	clear	16.50	
1050	1.00	2.75	24.73	4.35	0.284	0.6	-108.8	0.33	clear	16.51	
1053	0.15	2.90	24.71	4.35	0.285	0.6	-110.0	0.33	clear	16.51	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-8A Time Collected: 1055 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~63°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.93 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 82.5 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.51 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.58 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: rancid

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (22.5 - 15.93) x 0.16 = 1.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 2.90 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-8B WACS ID: 19922 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II / (EA Hurricane) Purge Rate: 0.42 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0950 Time @ End of Purging: 1120 Total Purging Time: 90 min

Depth of Pump or Intake Tubing: 45 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1110	33.60	33.60	24.10	4.63	0.048	50	-91.5	0.27	cloudy	18.99	
1115	2.10	35.70	24.06	4.64	0.048	47.4	-91.9	0.26	cloudy	18.99	
1120	2.10	37.80	24.04	4.64	0.048	44.4	-92.1	0.26	cloudy	18.99	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-8B Time Collected: 1125 Comments: initial turbidity 52 NTU

Well Inspection

Field Conditions/Observations: overcast, ~63°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ____ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ____ No Well Cap: _X_ Yes ____ No Well Cap: _X_ Tight ____ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01 ft)

Depth to Water (initial): 15.87 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 49.6 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 18.99 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 3.12 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ____ No Describe: slight solfur like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (49.6 - 15.87) x 0.16 = 5.4 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 60 ft.)+ *(Fc)* 0.25 gal = 0.6 gal

3 Well/Equipment Volumes = 1.8 gallons. Purged Volume (actual): 37.8 gallons

Purge Water Contained? ____ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ____ Yes ____ No; Purge Water Discharged to Ground? _X_ Yes ____ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.10 gpm

QA Sample Collected ___ Yes _X_ No; ____ Blind Duplicate; ____ EQ. Blank; ____ Field Blank; ____ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: _X_ Yes ____ No Filter Size: 1 µm; ____ All Analyses; _X_ Metals Only;

Turbidity After Filter: 6.9 NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3, dissolved Metals

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic
3 JT 11-5-08

____ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-8C WACS ID: 19923 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0940 Time @ End of Purging: 1040 Total Purging Time: 60min

Depth of Pump or Intake Tubing: 69 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1025	2.25	2.25	23.52	4.66	0.047	1.8	-65.6	0.56	clear	16.15	
1030	0.25	2.50	23.56	4.66	0.047	1.2	-66.2	0.53	clear	16.15	
1035	0.25	2.75	23.54	4.66	0.047	1.5	-66.4	0.53	clear	16.15	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-8C Time Collected: 1040 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~63°F, S. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.05 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.9 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.15 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.10 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: slight sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.9 - 16.05) x 0.16 = 9.3 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 80 ft.)+ *(Fc)* 0.25 gal = 0.5 gal

3 Well Equipment Volumes = 1.5 gallons Purged Volume (actual): 3.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-9A WACS ID: 199241 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.06 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0725 Time @ End of Purging: 0815 Total Purging Time: 50 min

Depth of Pump or Intake Tubing: 20 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0800	2.10	2.10	25.07	4.78	0.176	9.5	-111.3	1.38	amber	16.32	
0805	0.30	2.40	25.17	4.75	0.176	9.1	-109.2	1.07	amber	16.32	
0810	0.30	2.70	25.17	4.74	0.176	8.8	-106.6	0.90	amber	16.32	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-9A Time Collected: 0815 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~63°F

Well Inspection:

Well Type: ___ Flush Mount X Stick Up ___ Other Well Size (ID): 2 in. ___ Steel X PVC

Condition (locked, damaged, etc.): _____

Well Labeled: X Yes ___ No Well Cap: X Yes ___ No Well Cap: X Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.15 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 22.4 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.32 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.17 ft. (Depth to Water (initial) -- Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes X No Describe: _____

1 Well Volume (WV) = (depth of well -- depth to water $_{(initial)}$) x well capacity = (22.4 - 16.15) x 0.16 = 1.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 55 ft.)+ *(Fc)* 0.25 gal = 0.4 gal

3 Well/Equipment Volumes = 1.2 gallons Purged Volume (actual): 3.0 gallons

Purge Water Contained? ___ Yes X No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? X Yes ___ No w/in cell liner boundary JT 11-5-08

Sampling Method: ___ Bailer X Peristaltic Pump ___ Submersible Pump Sample Rate: 0.06 gpm

QA Sample Collected X Yes ___ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: DUP-2 QA Sample Time: _____

Filtered: ___ Yes X No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: 6 40 ml vials ___ 1 liter amber glass 2 125 ml plastic ___ 250 ml plastic 1 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier X UPS (Airbill No. _____) ___ Other (_____)

Notes:
Purge water discharged to ground within cell liner boundary

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-9B WACS ID: 19925 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II/PA Hurricane Purge Rate: 0.30 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0720 Time @ End of Purging: 0905 Total Purging Time: 105 min

Depth of Pump or Intake Tubing: 4/4 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0855	28.50	28.50	24.81	4.60	0.069	8.8	-87.9	0.33	clear	18.45	
0900	1.50	30.00	24.84	4.61	0.069	8.2	-88.0	0.32	clear	18.49	
0904	1.20	31.20	24.83	4.59	0.069	8.2	-87.5	0.32	clear	18.49	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-9B Time Collected: 0905 Comments: Turbidity @ 0740, 68.3 NTU

Well Inspection

Field Conditions/Observations: overcast, ~63°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01 ft)

Depth to Water (initial): 16.17 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 49.1 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 18.49 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 2.32 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (49.1 - 16.17) x 0.16 = 5.3 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 62 ft.)+ *(Fc)* 0.25 gal = 0.55 gal

3 Well Equipment Volumes = 1.65 gallons Purged Volume (actual): 31.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.11 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 5 November 2008 Sampled By: J. Terry

Station (Well No.): MW-9C WACS ID: 19926 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0735 Time @ End of Purging: 0845 Total Purging Time: 70 min

Depth of Pump or Intake Tubing: 69 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0800	1.25	1.25	24.38	5.81	0.097	4.5	-168.7	0.67	clear	16.38	
0805	0.25	1.50	24.40	5.71	0.089	3.2	-163.7	0.59	clear	16.38	
0830	1.25	2.75	24.29	5.50	0.080	5.2	-155.6	0.48	clear	16.38	
0840	0.50	3.25	24.37	5.52	0.081	6.6	-157.8	0.44	clear	16.38	
0843	0.15	3.40	24.32	5.52	0.081	6.2	-158.3	0.44	clear	16.38	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-9C Time Collected: 0845 Comments: ___

Well Inspection

Field Conditions/Observations: Overcast, ~63°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: X Yes ___ No Well Cap: X Yes ___ No Well Cap: X Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01 ft)

Depth to Water (initial): 16.28 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.8 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.38 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.10 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes X No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.8 - 16.28) x 0.16 = 9.2 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 78 ft.)+ *(Fc)* 0.25 gal = 0.5 gal

3 Well/Equipment Volumes = 1.5 gallons Purged Volume (actual): 3.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer X Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes X No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes X No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-10A WACS ID: 19927 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.04 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 1400 Time @ End of Purging: 1450 Total Purging Time: 50 min

Depth of Pump or Intake Tubing: 20 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1440	1.60	1.60	24.84	4.54	0.141	12.6	-37.8	0.83	yellow	17.81	
1445	0.20	1.80	24.88	4.55	0.141	12.6	-39.4	0.74	yellow	17.81	
1448	0.12	1.92	24.90	4.53	0.142	12.4	-38.8	0.72	yellow	17.81	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-10A Time Collected: 1450 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~74°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: X Yes ___ No Well Cap: X Yes ___ No Well Cap: X Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 17.71 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 22.1 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 17.81 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.10 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: X Yes ___ No Describe: slightly sour

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (22.1 - 17.71) x 0.16 = 0.7 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 2.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer X Peristaltic Pump ___ Submersible Pump Sample Rate: 0.04 gpm

QA Sample Collected ___ Yes X No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes X No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

_____

_____

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-10B WACS ID: 19928 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1355 Time @ End of Purging: 1510 Total Purging Time: 75 min

Depth of Pump or Intake Tubing: 43 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1443	2.40	2.40	24.88	4.88	0.064	0.4	-156.6	0.23	clear	17.81	
1448	0.25	2.65	24.87	4.87	0.064	0.3	-156.9	0.23	clear	17.81	
1505	0.85	3.50	24.79	4.82	0.064	0.1	-155.5	0.19	clear	17.81	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-10B Time Collected: 1510 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~74°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 17.74 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 48.3 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 17.81 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.07 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: slightly sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (48.3 - 17.74) x 0.16 = 5.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 52 ft.)+ *(Fc)* 0.25 gal = 0.4 gal

3 Well/Equipment Volumes = 1.2 gallons Purged Volume (actual): 3.75 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-10C WACS ID: 19929 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II / RA Hurricane Purge Rate: 0.40 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1410 Time @ End of Purging: 1530 Total Purging Time: 80 min

Depth of Pump or Intake Tubing: 69 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1520	29.00	28.00	24.16	4.79	0.042	12.0	-130.8	0.14	clear	18.40	
1524	1.60	29.60	24.16	4.77	0.042	12.0	-129.1	0.11	clear	18.40	
1527	1.20	30.80	24.16	4.73	0.042	11.6	-126.1	0.10	clear	18.40	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-10C Time Collected: 1530 Comments: initial turbidity 24 NTU

Well Inspection

Field Conditions/Observations: overcast, ~74°F, S. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 18.06 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.7 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 18.40 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.34 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.7 - 18.06) x 0.16 = 9.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 80 ft.)+ *(Fc)* 0.25 gal = 0.7 gal

3 Well/Equipment Volumes = 2.1 gallons Purged Volume (actual): 32.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-11A WACS ID: 19930 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A,M

Water Level Meter: Solinst Time @ Start of Purging: 1150 Time @ End of Purging: 1230 Total Purging Time: 40 min

Depth of Pump or Intake Tubing: 19 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1220	1.50	1.50	26.00	4.89	0.203	6.6	-44.6	0.54	yellow	15.51	
1225	0.25	1.75	26.08	4.90	0.204	6.2	-45.6	0.46	yellow	15.51	
1229	0.20	1.95	26.06	4.91	0.203	6.0	-46.1	0.42	yellow	15.51	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-11A Time Collected: 1230 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~74°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _15.43_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _22.8_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _15.51_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _0.08_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: rancid

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (_22.8_ - _15.43_) x _0.16_ = _1.2_ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* _0.0_ gal + (0.041 x *(D)* _0.25_ in. x *(D)* _0.25_ in. x *(L)* _30_ ft.)+ *(Fc)* _0.25_ gal = _0.33_ gal

3 Well/Equipment Volumes = _1.0_ gallons Purged Volume (actual): _2.0_ gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No w/in cell liner boundary BT 11-4-08

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: _0.05_ gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-11B WACS ID: 19931 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.40 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1130 Time @ End of Purging: 1325 Total Purging Time: 115 min

Depth of Pump or Intake Tubing: 43 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1315	42.00	42.00	24.97	5.05	0.064	6.8	-146.9	0.08	clear	16.20	
1319	1.60	43.60	25.00	5.03	0.064	6.7	-146.0	0.08	clear	16.20	
1324	2.00	45.60	25.00	5.02	0.064	6.2	-145.9	0.07	clear	16.20	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-11B Time Collected: 1325 Comments: Turbidity @ 1150, 45 NTU

Well Inspection

Field Conditions/Observations: Overcast, ~74°F, S. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.45 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 47.9 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.20 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.75 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (47.9 - 15.45) x 0.16 = 5.2 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 56 ft.)+ *(Fc)* 0.25 gal = 0.6 gal

3 Well/Equipment Volumes = 1.8 gallons Purged Volume (actual): 46.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.12 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-11C WACS ID: 19932 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II/ PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A L

Water Level Meter: Solinst Time @ Start of Purging: 1140 Time @ End of Purging: 1250 Total Purging Time: 70 min

Depth of Pump or Intake Tubing: 68.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1222	2.10	2.10	24.69	5.42	0.084	1.3	-155.4	0.28	clear	15.63	
1227	0.25	2.35	24.81	5.46	0.085	1.5	-156.1	0.26	clear	15.63	
1245	0.90	3.25	24.74	5.46	0.087	1.0	-158.3	0.21	clear	15.63	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-11C Time Collected: 1250 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~74°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 15.53 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.4 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 15.63 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.10 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.4 - 15.53) x 0.16 = 9.3 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 77 ft.)+ *(Fc)* 0.25 gal = 0.45 gal

3 Well/Equipment Volumes = 1.35 gallons Purged Volume (actual): 3.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J Terry

Station (Well No.): MW-12A WACS ID: 19933 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.04 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0935 Time @ End of Purging: 1020 Total Purging Time: 45 min

Depth of Pump or Intake Tubing: 20 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1000	1.00	1.00	24.71	4.38	0.084	0.4	-108.1	0.30	clear	16.95	
1003	0.12	1.12	24.72	4.36	0.085	0.5	-112.6	0.29	clear	16.95	
1007	0.16	1.28	24.75	4.35	0.085	0.4	-109.9	0.28	clear	16.95	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-12A Time Collected: 1020 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~74°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.72 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 23.0 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.95 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.23 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: rancid

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (23.0 - 16.72) x 0.16 = 1.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.32 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 1.8 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.04 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-12B WACS ID: 19934 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.30 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0925 Time @ End of Purging: 1055 Total Purging Time: 90 min

Depth of Pump or Intake Tubing: 44 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1040	22.50	22.50	24.23	4.58	0.072	9.4	-13.7	0.42	clear	17.30	
1050	3.00	25.50	24.30	4.58	0.072	8.5	-13.8	0.32	clear	17.30	
1053	0.90	26.40	24.31	4.59	0.072	8.2	-14.0	0.31	clear	17.30	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-12B Time Collected: 1055 Comments: initial turbidity 43 NTU. Turbidity @ 10:00, 25 NTU.

Well Inspection

Field Conditions/Observations: overcast, ~74°F, south easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.77 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 49.0 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 17.30 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.53 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (49.0 - _____) x 0.16 = _____ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 55 ft.)+ *(Fc)* 0.25 gal = 0.6 gal

3 Well/Equipment Volumes = 1.8 gallons Purged Volume (actual): 27.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: _____ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-12C WACS ID: 19935 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0930 Time @ End of Purging: 1010 Total Purging Time: 40 min

Depth of Pump or Intake Tubing: 69 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1000	1.50	1.50	23.64	4.51	0.045	4.1	-1.9	0.71	Clear	16.98	
1005	0.25	1.75	23.68	4.51	0.046	4.2	-3.4	0.61	Clear	16.98	
1009	0.20	1.95	23.72	4.51	0.046	4.1	-3.6	0.58	Clear	16.98	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-12C Time Collected: 1010 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~74°F, s. easterly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.90 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.6 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.98 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.08 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: slight sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.6 - 16.90) x 0.16 = 9.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 78 ft.)+ *(Fc)* 0.25 gal = 0.5 gal

3 Well/Equipment Volumes = 1.5 gallons Purged Volume (actual): 2.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-13A WACS ID: 19936 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0715 Time @ End of Purging: 0815 Total Purging Time: 60 min

Depth of Pump or Intake Tubing: 20 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0755	2.00	2.00	24.74	4.77	0.111	4.8	-46.5	1.15	clear	16.88	
0800	0.25	2.25	24.76	4.77	0.110	4.5	-46.6	0.93	clear	16.89	
0813	0.65	2.90	24.77	4.77	0.111	2.9	-43.8	0.59	clear	16.89	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-13A Time Collected: 0815 Comments: ___

Well Inspection

Field Conditions/Observations: Overcast, ~73°F, southerly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _16.68_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _22.5_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _16.89_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _0.21_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: rancid

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (22.5 - 16.68) x 0.16 = 1.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 28 ft.)+ *(Fc)* 0.25 gal = 0.32 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 3.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-13B WACS ID: 19437 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.32 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A L

Water Level Meter: Solinst Time @ Start of Purging: 0705 Time @ End of Purging: 0845 Total Purging Time: 100 min

Depth of Pump or Intake Tubing: 42 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0835	28.80	28.80	24.24	4.88	0.047	9.9	-104.2	0.13	clear	16.86	
0840	1.60	30.40	24.23	4.87	0.047	10.2	-103.8	0.13	clear	16.86	
0845	1.60	32.00	24.25	4.86	0.047	10.0	-103.0	0.11	clear	16.86	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-13B Time Collected: 0847 Comments: initial turbidity 44 NTU

Well Inspection

Field Conditions/Observations: overcast, ~74°F, southerly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.61 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 47.2 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.86 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.25 ft. (Depth to Water (initial) -- Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: X Yes No Describe: sulfur-like

1 Well Volume (WV) = (depth of well -- depth to water $_{(initial)}$) x well capacity = (47.2 - 16.61) x 0.16 = 5.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 55 ft.)+ *(Fc)* 0.25 gal = 0.6 gal

3 Well/Equipment Volumes = 1.8 gallons Purged Volume (actual): 32.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 4 November 2008 Sampled By: J. Terry

Station (Well No.): MW-13C WACS ID: 19938 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A L

Water Level Meter: Solinst Time @ Start of Purging: 0720 Time @ End of Purging: 0805 Total Purging Time: 45 min

Depth of Pump or Intake Tubing: 68 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0745	1.25	1.25	23.62	5.11	0.049	2.1	-61.1	0.66	clear	16.70	
0752	0.35	1.60	23.79	5.01	0.048	2.0	-75.5	0.52	clear	16.71	
0758	0.30	1.90	23.83	4.99	0.048	1.9	-77.8	0.44	clear	16.71	
0802	0.20	2.10	23.82	4.97	0.048	1.7	-78.7	0.45	clear	16.71	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-13C Time Collected: 0805 Comments: ___

Well Inspection

Field Conditions/Observations: overcast, ~74°F, southerly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ____ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: X Yes ____ No Well Cap: X Yes ____ No Well Cap: X Tight ____ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 16.61 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 73.0 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 16.71 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.10 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ____ No Describe: slight sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (73.0 - 16.61) x 0.16 = 9.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 80 ft.)+ *(Fc)* 0.25 gal = 0.5 gal

3 Well/Equipment Volumes = 1.5 gallons Purged Volume (actual): 2.25 gallons

Purge Water Contained? ____ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ____ Yes ____ No; Purge Water Discharged to Ground? _X_ Yes ____ No

Sampling Method: ___ Bailer X Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes X No; ____ Blind Duplicate; ____ EQ. Blank; ____ Field Blank; ____ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ____ Yes _X_ No Filter Size: _____ µm; ____ All Analyses; ____ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

____ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-16A WACS ID: 22342 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.07 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1055 Time @ End of Purging: 1250 Total Purging Time: 115 min

Depth of Pump or Intake Tubing: 14 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1215	5.60	5.60	26.11	5.27	0.060	6.2	55.6	3.07	clear	10.15	
1220	0.35	5.95	26.10	5.16	0.061	4.2	61.3	2.93	clear	10.15	
1238	1.26	7.21	26.08	5.11	0.061	3.9	63.0	2.62	clear	10.15	
1241	0.21	7.42	26.10	5.15	0.061	4.3	63.2	2.61	clear	10.15	
1245	0.28	7.70	26.11	5.15	0.061	4.0	61.1	2.62	clear	10.15	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-16A Time Collected: 1250 Comments: initial turbidity 173 NTU lots of debris in water (grout?)

Well Inspection

Field Conditions/Observations: m. sunny, ~80°F, strong westerly wind, dust in the air

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 9.60 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 18.63 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 10.15 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.55 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (18.63 - 9.60) x 0.16 = 1.44 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 8.05 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.07 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:
Purged >5 well volumes unable to get DO below 20%; however it is within ±0.2mg/L. (No bubbles in flow cell.)

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-16B WACS ID: 22343 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.70 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1035 Time @ End of Purging: 1230 Total Purging Time: 125 min

Depth of Pump or Intake Tubing: 33 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1215	70.00	70.00	24.78	4.99	0.054	57.0	-91.3	0.86	cloudy	11.36	
1222	4.90	74.90	24.79	4.98	0.054	56.0	-93.8	0.25	cloudy	11.36	
1225	2.10	77.00	24.80	4.96	0.054	57.1	-93.0	0.22	cloudy	11.36	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-16B Time Collected: 1230 Comments: initial turbidity 639 NTU @ 1045 first water that flowed was filled w/silt (very thick)

Well Inspection

Field Conditions/Observations: m. sunny, ~80°F, strong westerly wind, dust in air

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 9.93 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 38.09 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 11.36 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.43 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (38.09 - 9.93) x 0.16 = 4.5 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 45 ft.)+ *(Fc)* 0.25 gal = 0.5 gal

3 Well Equipment Volumes = 1.5 gallons Purged Volume (actual): 87.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: _X_ Yes ___ No Filter Size: ___ µm; ___ All Analyses; _X_ Metals Only;

Turbidity After Filter: 0.4 NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3, Dissolved Metals

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic
3 pt 11-11-08
___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-16C WACS ID: 22344 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II/PA Hurricane Purge Rate: 0.30 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 1045 Time @ End of Purging: 1150 Total Purging Time: 65 min

Depth of Pump or Intake Tubing: 63 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1135	15.00	15.00	24.26	5.08	0.073	7.1	-60.4	0.31	clear	11.65	
1140	1.50	16.50	24.34	5.11	0.073	6.5	-60.6	0.24	clear	11.65	
1145	1.50	18.00	24.28	5.11	0.073	6.2	-61.1	0.25	clear	11.65	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-16C Time Collected: 1150 Comments: initial turbidity 48 NTU

Well Inspection

Field Conditions/Observations: Mostly sunny, ~80°F, Strong westerly wind, dust on car

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 10.21 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 67.7 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 11.65 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.44 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (67.7 - 10.21) x 0.16 = 9.2 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 78 ft.)+ *(Fc)* 0.25 gal = 0.7 gal

3 Well/Equipment Volumes = 2.1 gallons Purged Volume (actual): 19.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.11 gpm

QA Sample Collected _X_ Yes ___ No; _X_ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: DUP-2 QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-17A WACS ID: 22345 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A L

Water Level Meter: Solinst Time @ Start of Purging: 1325 Time @ End of Purging: 1425 Total Purging Time: 60 min

Depth of Pump or Intake Tubing: 15 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1355	1.50	1.50	25.32	4.23	0.070	4.7	91.7	0.84	clear	10.96	
1400	0.25	1.75	25.23	4.21	0.072	3.2	76.6	0.63	clear	11.01	
1405	0.25	2.00	25.23	4.22	0.072	2.4	74.4	0.60	clear	11.03	
1409	0.20	2.20	25.25	4.23	0.072	2.1	72.6	0.56	clear	11.03	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-17A Time Collected: 1425 Comments: ___

Well Inspection

Field Conditions/Observations: m. cloudy, ~80°F, strong westerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 9.49 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 19.88 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 11.03 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.54 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (19.88 - 9.49) x 0.16 = 1.7 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 3.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-17B WACS ID: 22346 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.34 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1315 Time @ End of Purging: 1415 Total Purging Time: 60 min

Depth of Pump or Intake Tubing: 35 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1400	15.30	15.30	24.10	4.94	0.082	14.0	-109.9	0.48	clear	11.36	
1405	1.70	17.00	24.09	4.94	0.082	12.7	-110.5	0.31	clear	11.36	
1410	1.70	18.70	24.09	4.93	0.082	11.2	-110.6	0.25	clear	11.36	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-17B Time Collected: 1415 Comments: initial turbidity 38 NTU

Well Inspection

Field Conditions/Observations: m. cloudy, ~80°F, strong westerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 9.92 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 40.18 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 11.36 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.44 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (40.18 - 9.92) x 0.16 = 4.8 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 50 ft.)+ *(Fc)* 0.25 gal = 0.54 gal

3 Well Equipment Volumes = 1.62 gallons Purged Volume (actual): 20.4 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.08 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-17C WACS ID: 223417 Purge Method: Pump ☒ Bailer ☐ Pump Type: ✗ Submersible (__ Teflon ✗ SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.45 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1315 Time @ End of Purging: 1450 Total Purging Time: 95 min

Depth of Pump or Intake Tubing: 62 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1435	36.00	36.00	23.62	5.33	0.074	10.4	-92.8	0.21	clear	11.62	
1440	2.25	38.25	23.60	5.31	0.074	8.7	-92.4	0.19	clear	11.66	
1445	2.25	40.50	23.68	5.33	0.074	6.9	-93.1	0.18	clear	11.66	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-17C Time Collected: 1450 Comments: initial turbidity 54 NTU

Well Inspection

Field Conditions/Observations: m. cloudy, ~80°F, strong westerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _10.20_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _67.3_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _11.66_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _1.46_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (_67.3_ - _10.20_) x _0.16_ = _9.0_ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* _0.0_ gal + (0.041 x *(D)* _0.375_ in. x *(D)* _0.375_ in. x *(L)* _75_ ft.)+ *(Fc)* _0.25_ gal = _0.7_ gal

3 Well/Equipment Volumes = _2.1_ gallons Purged Volume (actual): _42.75_ gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: _0.11_ gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: _8260, EDB, T. Metals, NH_3, TDS, CL, NO_3_

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: _Columbia Analytical Services_

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 12 November 2008 Sampled By: J. Terry

Station (Well No.): MW-18A WACS ID: 22348 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.07 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0710 Time @ End of Purging: 0820 Total Purging Time: 70 min

Depth of Pump or Intake Tubing: 14 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0755	3.15	3.15	24.54	4.82	0.064	11.4	122.4	1.23	Slight Yellow tint	9.65	
0807	0.84	3.99	24.58	4.73	0.066	8.8	79.3	0.49	" "	9.65	
0810	0.21	4.20	24.59	4.73	0.066	8.5	61.5	0.65	" "	9.65	
0815	0.35	4.55	24.58	4.72	0.066	8.1	33.2	0.40	" "	9.65	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-18A Time Collected: 0820 Comments: ___

Well Inspection

Field Conditions/Observations: p.cloudy, ~68°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 9.44 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 17.70 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 9.65 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.21 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (17.70 - 9.44) x 0.16 = 1.32 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 4.9 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.07 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 12 November 2008 Sampled By: J. Terry

Station (Well No.): MW-18B WACS ID: 22349 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.70 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0710 Time @ End of Purging: 0800 Total Purging Time: 50 min

Depth of Pump or Intake Tubing: 33 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0745	24.50	24.50	23.88	4.74	0.066	14.1	-3.9	0.93	clear	14.68	
0750	3.50	28.00	23.82	4.60	0.067	8.7	5.9	0.46	clear	14.77	
0755	3.50	31.50	23.80	4.54	0.067	7.5	8.2	0.39	clear	14.80	
0758	2.10	33.60	23.82	4.51	0.067	6.8	9.9	0.36	clear	14.83	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-18B Time Collected: 0800 Comments: Initial turbidity 101 NTU

Well Inspection

Field Conditions/Observations: P. Cloudy, ~68°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 9.35 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 37.80 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 14.83 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 5.48 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: slight sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (37.80 - 9.35) x 0.16 = 5.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 45 ft.)+ *(Fc)* 0.25 gal = 0.5 gal

3 Well/Equipment Volumes = 1.5 gallons Purged Volume (actual): 35.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.10 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 12 November 2008 Sampled By: J. Terry

Station (Well No.): MW-18C WACS ID: 22350 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (Teflon X SS Other) Peristaltic

Pump (Make & Model): Geopump II PA Hurricane Purge Rate: 0.60 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0710 Time @ End of Purging: 0910 Total Purging Time: 120 min

Depth of Pump or Intake Tubing: 62 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0855	63.00	63.00	23.67	5.18	0.081	19.7	11.9	0.22	clear	10.70	
0900	3.00	66.00	23.65	5.21	0.081	18.9	11.6	0.21	clear	10.70	
0905	3.00	69.00	23.60	5.21	0.081	19.0	12.2	0.22	clear	10.70	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-18C Time Collected: 0910 Comments: initial turbidity 744 NTU

Well Inspection

Field Conditions/Observations: p. cloudy, ~68°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 9.33 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 67.2 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 10.70 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.37 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (67.2 - 9.33) x 0.16 = 9.3 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 74 ft.)+ *(Fc)* 0.25 gal = 0.7 gal

3 Well/Equipment Volumes = 2.1 gallons Purged Volume (actual): 72.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.10 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 12 November 2008 Sampled By: J. Terry

Station (Well No.): MW-19A WACS ID: 22351 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II/PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0845 Time @ End of Purging: 0955 Total Purging Time: 70 min

Depth of Pump or Intake Tubing: 13.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0940	2.75	2.75	27.41	5.26	0.146	14.6	-110.0	0.42	slight yellow tint	9.28	
0950	0.50	3.25	27.40	5.25	0.146	15.5	-109.4	0.31	" "	9.28	
0953	0.15	3.40	27.38	5.23	0.147	15.8	-107.8	0.29	" "	9.28	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-19A Time Collected: 0955 Comments: ___

Well Inspection

Field Conditions/Observations: m. cloudy, ~75°F, strong s. westerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 8.99 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 17.65 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 9.28 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.29 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (17.65 - 8.99) x 0.16 = 1.4 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 32 ft.)+ *(Fc)* 0.25 gal = 0.53 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 3.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 12 November 2008 Sampled By: J. Terry

Station (Well No.): MW-19B WACS ID: 22352 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.40 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A

Water Level Meter: Solinst Time @ Start of Purging: 0850 Time @ End of Purging: 1015 Total Purging Time: 85 min

Depth of Pump or Intake Tubing: 33 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0945	22.00	22.00	28.03	4.82	0.085	31.0	18.6	0.25	clear	10.23	
1005	8.00	30.00	28.10	4.79	0.086	18.9	20.9	0.20	clear	10.25	
1010	2.00	32.00	28.08	4.72	0.086	17.4	21.8	0.19	clear	10.27	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-19B Time Collected: 1015 Comments: initial turbidity 75 NTU

Well Inspection

Field Conditions/Observations: m. Cloudy, ~75°F, strong S. westerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): ~~9.97~~ 9.07 JT 11-12-08 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 37.73 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 10.27 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 1.2 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (37.73 - 9.07) x 0.16 = 4.6 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 45 ft.)+ *(Fc)* 0.25 gal = 0.5 gal

3 Well Equipment Volumes = 1.5 gallons Purged Volume (actual): 34.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.08 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 12 November 2008 Sampled By: J Terry

Station (Well No.): MW-19C WACS ID: 22353 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (Teflon X SS Other) Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.42 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0930 Time @ End of Purging: 1210 Total Purging Time: 160 min

Depth of Pump or Intake Tubing: 62 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1035	27.30	27.30	27.32	5.35	0.083	139	8.9	0.52	cloudy	11.23	
1050	6.30	33.60	27.40	5.22	0.083	125	11.9	0.22	cloudy	11.23	
1155	27.30	60.90	27.01	5.20	0.082	70	15.9	0.57	cloudy	11.23	
1200	2.10	63.00	26.94	5.16	0.082	68	16.2	0.53	cloudy	11.23	
1205	2.10	65.10	26.95	5.15	0.082	71	16.0	0.50	cloudy	11.23	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-19C Time Collected: 1210 Comments: initial turbidity 143 NTU

Well Inspection

Field Conditions/Observations: m. cloudy, ~75°F, strong s. westerly wind
sprinkle @ 1145

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _8.93_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _66.7_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _11.23_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _2.30_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (_66.7_ - _8.93_) x _0.16_ = _9.24_ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* _0.0_ gal + (0.041 x *(D)* _0.375_ in. x *(D)* _0.375_ in. x *(L)* _75_ ft.)+ *(Fc)* _0.25_ gal = _0.7_ gal

3 Well/Equipment Volumes = _2.1_ gallons Purged Volume (actual): _67.2_ gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: _0.12_ gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: _X_ Yes ___ No Filter Size: _1_ µm; ___ All Analyses; _X_ Metals Only;

Turbidity After Filter: _0.4_ NTU

Analysis Required: _8260, EDB, T. Metals, NH_3, TDS, CL, NO_3_

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: _Columbia Analytical Services_

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-20A WACS ID: 22354 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.08 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0710 Time @ End of Purging: 1005 Total Purging Time: 175 min

Depth of Pump or Intake Tubing: 13 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0950	12.80	12.80	25.08	4.96	0.094	22.0	35.9	1.62	slight yellow tint	8.21	
0955	0.40	13.20	24.99	4.92	0.094	19.8	38.4	1.58	" "	8.21	
1000	0.40	13.60	24.98	4.91	0.094	18.7	38.8	1.42	" "	8.21	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-20A Time Collected: 1005 Comments: initial turbidity 75 NTU

Well Inspection

Field Conditions/Observations: clear, ~60°F, strong westerly wind, dust in the air

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 7.70 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 17.93 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 8.21 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.51 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (17.93 - 7.70) x 0.16 = 1.64 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 25 ft.)+ *(Fc)* 0.25 gal = 0.32 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 14.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.08 gpm

QA Sample Collected _X_ Yes ___ No; ___ Blind Duplicate; _X_ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: Equipment Blank QA Sample Time: 0730

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: ~~6~~ 5 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic
___ ( ) BT 11-11-08

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:
Heavy truck traffic in area

Monitor... Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-20B WACS ID: 22355 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II PA Hurricane Purge Rate: 1.2 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0655 Time @ End of Purging: 0935 Total Purging Time: 160 min

Depth of Pump or Intake Tubing: 33 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0917	170.40	170.40				79.1			cloudy	9.43	
	Reduced Purge Rate to 0.50 GPM										
0925	4.00	174.40	24.49	5.03	0.085	75.7	-75.6	1.89	cloudy	8.63	Bubble in flow cell reason for high DO
0930	2.50	176.90	24.49	5.02	0.085	78.6	-75.5	0.31	cloudy	8.63	
0933	1.50	178.40	24.49	5.02	0.085	76.2	-75.7	0.30	cloudy	8.63	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-20B Time Collected: 0935 Comments: Initial turbidity 683 NTU

Well Inspection

Field Conditions/Observations: clear, ~60°F, strong westerly wind, dust in the air

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 8.19 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 37.76 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 8.63 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.44 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur - like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (37.76 - 8.19) x 0.16 = 4.7 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 48 ft.)+ *(Fc)* 0.25 gal = 0.53 gal

3 Well/Equipment Volumes = 1.6 gallons Purged Volume (actual): ~~192.0~~ 179.4 gallons JT 11-11-08

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.11 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: _X_ Yes ___ No Filter Size: ___ µm; ___ All Analyses; _X_ Metals Only;

Turbidity After Filter: 1.3 NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3, dissolved metals

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass ~~2~~ 3 125 ml plastic JT 11-11-08 ___ 250 ml plastic _1_ 500 ml plastic
___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 11 November 2008 Sampled By: J. Terry

Station (Well No.): MW-20C WACS ID: 72356 Purge Method: Pump ☒ Bailer ☐ Pump Type: ✕ Submersible (__ Teflon ✕ SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.80 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0650 Time @ End of Purging: 0910 Total Purging Time: 140 min

Depth of Pump or Intake Tubing: 62 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0845	92.00	92.00				51.4			Slightly cloudy	14.13	
	Reduced Purge Rate to 0.40 GPM										
0900	6.00	98.00	23.66	5.21	0.077	62.7	-69.1	0.75	Slightly cloudy	12.10	
0903	1.20	99.20	23.68	5.20	0.077	58.0	-67.4	0.51	" "	12.18	
0908	2.00	101.20	23.69	5.19	0.077	60.0	-66.3	0.41	" "	12.13	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-20C Time Collected: 0910 Comments: initial turbidity 1403 NTU

Well Inspection

Field Conditions/Observations: clear, ~60°F, strong westerly wind, dust in the air

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 8.35 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 66.8 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 12.13 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 3.78 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (66.8 - 8.35) x 0.16 = 9.4 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 75 ft.)+ *(Fc)* 0.25 gal = 0.7 gal

3 Well/Equipment Volumes = 2.1 gallons Purged Volume (actual): 102 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: _X_ Yes ___ No Filter Size: 1 µm; ___ All Analyses; _X_ Metals Only;

Turbidity After Filter: 0.0 NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3, Dissolved metals

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic
BJT 11-11-08
___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)
Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-21A WACS ID: 22357 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.65 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1320 Time @ End of Purging: 1510 Total Purging Time: 110 min

Depth of Pump or Intake Tubing: 14 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1425	3.25	3.25	25.47	4.14	0.104	10.9	158.7	2.67	clear	8.95	
1430	0.25	3.50	25.52	4.23	0.105	5.2	153.0	2.30	clear	8.95	
1508	1.90	5.40	25.50	4.14	0.105	1.3	152.9	1.58	clear	8.95	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-21A Time Collected: 1510 Comments: initial turbidity 70 NTU

Well Inspection

Field Conditions/Observations: Sunny, ~80°F, southerly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 8.62 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 18.04 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 8.95 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.33 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (18.04 - 8.62) x 0.16 = 1.5 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 28 ft.)+ *(Fc)* 0.25 gal = 0.32 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 5.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)
Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-21B WACS ID: 22358 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.90 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 1320 Time @ End of Purging: 1530 Total Purging Time: 130 min

Depth of Pump or Intake Tubing: 33 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1500	90.00	90.00				22.0			clear	9.35	
	Reduced purge rate to 0.50 GPM										
1520	10.00	100.00	24.44	5.10	0.090	19.8	-113.2	0.19	clear	9.08	
1525	2.50	102.50	24.47	5.10	0.090	19.2	-113.6	0.19	clear	9.08	
1528	1.5	104.00	24.46	5.10	0.090	18.8	-114.0	0.18	clear	9.08	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-21B Time Collected: 1530 Comments: initial turbidity 58 NTU. Turbidity @ 13:25, 28NTU

Well Inspection

Field Conditions/Observations: sunny, ~80°F, southly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 8.66 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 37.63 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 9.08 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.42 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (37.63 - 8.66) x 0.16 = 4.64 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 45 ft.)+ *(Fc)* 0.25 gal = 0.51 gal

3 Well Equipment Volumes = 1.53 gallons Purged Volume (actual): ~~117.0~~ 105 gal 11-10-08 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.11 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FO 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-21C WACS ID: 22359 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) __ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.50 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1320 Time @ End of Purging: 1455 Total Purging Time: 95 min

Depth of Pump or Intake Tubing: 58 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1430	35.00	35.00	23.98	5.43	0.094	88.8	-98.9	0.89	cloudy	13.37	
1435	2.50	37.50	23.97	5.43	0.094	74.8	-98.8	0.43	cloudy	13.37	
1440	2.50	40.00	23.97	5.43	0.094	70.4	-98.5	0.29	cloudy	13.37	
1450	5.00	45.00	23.97	5.42	0.094	72.0	-98.5	0.25	cloudy	13.37	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-21C Time Collected: 1455 Comments: Initial turbidity 1300 NTU

Well Inspection

Field Conditions/Observations: sunny, ~80°F, southerly breeze

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 8.59 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 62.6 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 13.37 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 4.78 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (62.6 - 8.59) x 0.16 = 8.64 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 70 ft.)+ *(Fc)* 0.25 gal = 0.65 gal

3 Well/Equipment Volumes = 2.0 gallons Purged Volume (actual): 47.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: _X_ Yes ___ No Filter Size: ___ µm; ___ All Analyses; _X_ Metals Only;

Turbidity After Filter: 0.3 NTU

Analysis Required: 8260, EDB, ~~T. Metals~~, NH_3, TDS, CL, NO_3, Dissolved metals

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass ~~2~~ 3 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic
___ ( ) JT 11-10-09

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-22A WACS ID: 22360 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1035 Time @ End of Purging: 1135 Total Purging Time: 60 min

Depth of Pump or Intake Tubing: 14.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1115	2.00	2.00	25.32	4.44	0.093	2.3	124.1	0.67	clear	10.77	
1120	0.25	2.25	25.37	4.37	0.094	2.1	123.3	0.51	clear	10.78	
1128	0.40	2.65	25.38	4.34	0.093	1.9	119.5	0.41	clear	10.78	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-22A Time Collected: 1135 Comments: ___

Well Inspection

Field Conditions/Observations: sunny, ~77°F, southerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 10.47 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 18.00 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 10.78 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.31 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (18.00 - 10.47) x 0.16 = 1.2 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 30 ft.)+ *(Fc)* 0.25 gal = 0.33 gal

3 Well/Equipment Volumes = 1.0 gallons Purged Volume (actual): 3.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.05 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-22B WACS ID: 22361 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.90 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1040 Time @ End of Purging: 1230 Total Purging Time: 110 min

Depth of Pump or Intake Tubing: 33 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1200	72.00	72.00				48.7				11.31	
	Reduced purge rate to 0.36 GPM										
1213	4.68	76.68	24.77	5.34	0.057	50.7	-130.6	0.84	cloudy	10.81	
1220	2.52	79.20	24.82	5.28	0.057	50.1	-135.9	0.34	cloudy	10.81	
1225	1.80	81.00	24.79	5.26	0.057	50.2	-138.6	0.30	cloudy	10.81	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-22B Time Collected: 1230 Comments: initial turbidity 1303 NTU

Well Inspection

Field Conditions/Observations: Sunny, ~77°F, southerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): _10.51_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: _37.96_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): _10.81_ ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: _0.30_ ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: _sulfur-like_

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (_37.96_ - _10.51_) x _0.16_ = _4.4_ gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* _0.0_ gal + (0.041 x *(D)* _0.375_ in. x *(D)* _0.375_ in. x *(L)* _45_ ft.)+ *(Fc)* _0.25_ gal = _0.51_ gal

3 Well/Equipment Volumes = _1.53_ gallons Purged Volume (actual): _99.0 82.8 gal_ gallons 11-10-08

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: _0.12_ gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: _X_ Yes ___ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _0.0_ NTU

Analysis Required: _8260, EDB, T. Metals, NH_3, TDS, CL, NO_3, Dissolved metals_

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _~~2~~ 3_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic
___ ( ) 11-10-08

pH Verification of Preserved Samples: Analysis _____ Required pH _<2_ Measured pH _____

Laboratory Performing Analysis: _Columbia Analytical Services_

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-22C WACS ID: 27362 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.08 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1035 Time @ End of Purging: 1150 Total Purging Time: 75 min

Depth of Pump or Intake Tubing: 62 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1118	3.44	3.44	24.33	6.99	0.434	2.3	-139.1	0.57	clear	12.05	
1123	0.40	3.84	24.32	6.99	0.433	2.4	-138.6	0.54	clear	12.09	
1130	0.56	4.40	24.33	6.99	0.433	2.1	-142.5	0.42	clear	12.17	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-22C Time Collected: 1150 Comments: ___

Well Inspection

Field Conditions/Observations: Sunny, ~77°F, southerly wind

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 10.03 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 67.3 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 12.17 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 2.14 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (67.3 - 10.03) x 0.16 = 9.2 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 75 ft.)+ *(Fc)* 0.25 gal = 0.45 gal

3 Well Equipment Volumes = 1.4 gallons Purged Volume (actual): 6.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.08 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T, Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-22A WACS ID: 22360 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.05 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 1035 Time @ End of Purging: 1135 Total Purging Time: 60 min

Depth of Pump or Intake Tubing: 14.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1115	2.00	2.00	25.32	4.44	0.093	2.3	124.1	0.67	clear	10.77	
1120	0.25	2.25	25.37	4.37	0.094	2.1	123.3	0.51	clear	10.78	
1128	0.40	2.65	25.38	4.34	0.093	1.9	119.5	0.41	clear	10.78	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-22A Time Collected: 1135 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-22B WACS ID: 22361 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.90 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1040 Time @ End of Purging: 1230 Total Purging Time: 110 min

Depth of Pump or Intake Tubing: 33 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1200	72.00	72.00				48.7				11.31	
	Reduced purge rate to 0.36 GPM										
1213	4.68	76.68	24.77	5.34	0.057	50.7	-130.6	0.84	cloudy	10.81	
1220	2.52	79.20	24.82	5.28	0.057	50.1	-135.9	0.34	cloudy	10.81	
1225	1.80	81.00	24.79	5.26	0.057	50.2	-138.6	0.30	cloudy	10.81	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-22B Time Collected: 1230 Comments: initial turbidity 1303 NTU

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-22C WACS ID: 27362 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.08 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 1035 Time @ End of Purging: 1150 Total Purging Time: 75 min

Depth of Pump or Intake Tubing: 62 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
1118	3.44	3.44	24.33	6.99	0.434	2.3	-139.1	0.57	clear	12.05	
1123	0.40	3.84	24.32	6.99	0.433	2.4	-138.6	0.54	clear	12.09	
1130	0.56	4.40	24.33	6.99	0.433	2.1	-142.5	0.42	clear	12.17	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-22C Time Collected: 1150 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-23A WACS ID: 22363 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.04 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0730 Time @ End of Purging: 0845 Total Purging Time: 75 min

Depth of Pump or Intake Tubing: 25.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0810	1.60	1.60	23.17	4.92	0.162	1.7	18.3	0.79	clear	23.67	
0825	0.60	2.20	23.46	4.90	0.158	1.2	26.5	0.62	clear	23.67	
0830	0.20	2.40	23.58	4.89	0.159	1.1	29.9	0.47	clear	23.67	
0835	0.20	2.60	23.55	4.91	0.159	1.5	29.5	0.45	clear	23.67	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-23A Time Collected: 0845 Comments: ___

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-23A WACS ID: 22363 Purge Method: Pump ☒ Bailer ☐ Pump Type: ___ Submersible (__ Teflon __ SS __ Other) X Peristaltic

Pump (Make & Model): Geopump II / PA Hurricane Purge Rate: 0.04 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AL

Water Level Meter: Solinst Time @ Start of Purging: 0730 Time @ End of Purging: 0845 Total Purging Time: 75 min

Depth of Pump or Intake Tubing: 25.5 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0810	1.60	1.60	23.17	4.92	0.162	1.7	18.3	0.79	clear	23.67	
0825	0.60	2.20	23.46	4.90	0.158	1.2	26.5	0.62	clear	23.67	
0830	0.20	2.40	23.58	4.89	0.159	1.1	29.9	0.47	clear	23.67	
0835	0.20	2.60	23.55	4.91	0.159	1.5	29.5	0.45	clear	23.67	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-23A Time Collected: 0845 Comments: ___

Well Inspection

Field Conditions/Observations: M. Sunny, ~58°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ____ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ____ No Well Cap: _X_ Yes ____ No Well Cap: _X_ Tight ____ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 23.35 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 27.75 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 23.67 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.32 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ____ No Describe: Sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (27.75 - 23.35) x 0.16 = 0.7 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.25 in. x *(D)* 0.25 in. x *(L)* 38 ft.)+ *(Fc)* 0.25 gal = 0.35 gal

3 Well/Equipment Volumes = 1.1 gallons Purged Volume (actual): 3.0 gallons

Purge Water Contained? ____ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ____ Yes ____ No; Purge Water Discharged to Ground? _X_ Yes ____ No

Sampling Method: ___ Bailer _X_ Peristaltic Pump ___ Submersible Pump Sample Rate: 0.04 gpm

QA Sample Collected ___ Yes _X_ No; ____ Blind Duplicate; ____ EQ. Blank; ____ Field Blank; ____ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ____ Yes _X_ No Filter Size: _____ µm; ____ All Analyses; ____ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

____ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-23B WACS ID: 22364 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (__ Teflon X SS __ Other) ___ Peristaltic

Pump (Make & Model): Geopump II (PA Hurricane) Purge Rate: 0.30 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173AM

Water Level Meter: Solinst Time @ Start of Purging: 0730 Time @ End of Purging: 0855 Total Purging Time: 85 min

Depth of Pump or Intake Tubing: 38 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0815	13.50	13.50				1.3			clear	23.45	
0830	4.50	18.00	24.39	4.74	0.065	0.6	-106.1	0.57	clear	23.48	
0835	1.50	19.50	24.43	4.72	0.065	0.4	-104.5	0.57	clear	23.49	
0838	0.90	20.40	24.41	4.72	0.065	0.5	-103.5	0.47	clear	23.45	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs

If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-23B Time Collected: 0855 Comments: initial turbidity: 2.2 NTU

Well Inspection

Field Conditions/Observations: m. sunny, ~58°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01 ft)

Depth to Water (initial): 23.34 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 42.75 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 23.48 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.14 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): _NA_ ft. OVM/PID Reading (if applicable): _NA_ ppm.
Note: NA = Not Applicable

Detectable Odor: _X_ Yes ___ No Describe: sulfur-like

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (42.75 - 23.34) x 0.16 = 3.1 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 50 ft.)+ *(Fc)* 0.25 gal = 0.54 gal

3 Well/Equipment Volumes = 1.62 gallons Purged Volume (actual): 25.5 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.09 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Monitoring Well Sampling

Site: J.E.D. Disposal Facility (WACS Facility ID 89544) Project No.: FQ 1512 Task: 01 Date: 10 November 2008 Sampled By: J. Terry

Station (Well No.): MW-23C WACS ID: 22365 Purge Method: Pump ☒ Bailer ☐ Pump Type: X Submersible (Teflon X SS Other) Peristaltic

Pump (Make & Model): Geopump II/PA Hurricane Purge Rate: 0.40 gpm Water Quality Meter (Make & Model): YSI 556 S/N or ID: 06A2173A M

Water Level Meter: Solinst Time @ Start of Purging: 0730 Time @ End of Purging: 0930 Total Purging Time: 120 min

Depth of Pump or Intake Tubing: 62 ft. (BTOC)

Time	Purge Volume (gal)	Cumulative Purge Volume (gal)	Temp (°C)	PH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Color	Depth to Water (ft) BTOC	Comments
0915	42.00	42.00	23.84	5.77	0.086	28.0	-121.8	0.35	clear	23.79	
0922	2.80	44.80	23.95	5.78	0.087	20.3	-125.5	0.30	clear	23.83	
0930	3.20	48.00	23.92	5.78	0.086	16.8	-128.9	0.26	clear	23.80	

Note: When purging well with pump or intake tubing within a fully submerged well screen, purge minimum of 1 equipment volume prior to first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart, must purge minimum of 3 equipment volume + stabilized field parameters for sampling.

Note: When purging a well with well screen fully submerged and pump or intake tubing is placed in water column above the screened zone, purge minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements every ¼ well volume until purging requirements are satisfied.

Note: When purging wells with a partially submerged well screen and pump or tubing placed within a submerged screen zone, purge a minimum of one well volume prior to collecting first field parameter measurements. Take additional field parameter measurements no sooner than 2 to 3 minutes apart until purge requirements are satisfied.

Note: Three (3) consecutive readings within specified limits are to be obtained for sampling. Temperature: ± 0.2 °C; pH: ±0.2 standard units; Specific Conductance: ± 5.0% of reading; DO is no greater than 20% saturation at field measured temperature; and Turbidity ≤ 20 NTUs
If DO or Turbidity measurements cannot meet the above requirements within 5 well volumes; Temp, pH, Conductivity ranges remain unchanged, however, DO and turbidity must meet the following: DO ± 0.2 mg/L or 10%, whichever is greater; and Turbidity ± 5 NTUs or 10%, whichever is greater

Sample ID: MW-23C Time Collected: 0935 Comments: Initial turbidity: 74 NTU

Well Inspection

Field Conditions/Observations: m. sunny, ~58°F

Well Inspection:

Well Type: ___ Flush Mount _X_ Stick Up ___ Other Well Size (ID): _2_ in. ___ Steel _X_ PVC

Condition (locked, damaged, etc.): _____

Well Labeled: _X_ Yes ___ No Well Cap: _X_ Yes ___ No Well Cap: _X_ Tight ___ Loose

Comments: _____
(If capped, remove and allow well to stabilize before recording water level)

Well Sampling: (Note: Measure Water Levels to Nearest 0.01ft)

Depth to Water (initial): 23.35 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth of Well: 67.1 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Depth to Water (final): 23.80 ft. (measured from mark on top of riser pipe, otherwise measure from North side)

Draw down: 0.45 ft. (Depth to Water (initial) – Depth to Water (final))

Free Product Thickness (if applicable): NA ft. OVM/PID Reading (if applicable): NA ppm.
Note: NA = Not Applicable

Detectable Odor: ___ Yes _X_ No Describe: _____

1 Well Volume (WV) = (depth of well – depth to water $_{(initial)}$) x well capacity = (67.1 - 23.35) x 0.16 = 7.0 gal
Well Capacity (gal/ft): 0.75" = 0.02; 1"=0.04; 1.25"=0.06; 2"=0.16; 3"=0.37; 4"=0.65; 5"=1.02; 6"=1.47; 12"=5.88

1 Equipment Volume (EV)= P + (0.041D x D x L) + Fc
Where: P=Pump Volume (gal); D = Tubing Diameter (inches); L = Length of Tubing (ft); Fc = Flow Cell Volume (gal)
1 EV = *(P)* 0.0 gal + (0.041 x *(D)* 0.375 in. x *(D)* 0.375 in. x *(L)* 75 ft.)+ *(Fc)* 0.25 gal = 0.7 gal

3 Well/Equipment Volumes = 2.1 gallons Purged Volume (actual): 48.0 gallons

Purge Water Contained? ___ Yes _X_ No Container Used: ___ 55 Gallon Drum ___ Other (_____)

Labeled: ___ Yes ___ No; Purge Water Discharged to Ground? _X_ Yes ___ No

Sampling Method: ___ Bailer ___ Peristaltic Pump _X_ Submersible Pump Sample Rate: 0.11 gpm

QA Sample Collected ___ Yes _X_ No; ___ Blind Duplicate; ___ EQ. Blank; ___ Field Blank; ___ MS/MSD

QA Sample ID: _____ QA Sample Time: _____

Filtered: ___ Yes _X_ No Filter Size: ___ µm; ___ All Analyses; ___ Metals Only;

Turbidity After Filter: _____ NTU

Analysis Required: 8260, EDB, T. Metals, NH_3, TDS, CL, NO_3

Sample Bottles Filled: _6_ 40 ml vials ___ 1 liter amber glass _2_ 125 ml plastic ___ 250 ml plastic _1_ 500 ml plastic

___ ( )

pH Verification of Preserved Samples: Analysis _____ Required pH <2 Measured pH _____

Laboratory Performing Analysis: Columbia Analytical Services

Method of Shipment: ___ Courier _X_ UPS (Airbill No. _____) ___ Other (_____)

Notes:

Field Instrument Calibration Record

Project Name: JED Project No.: FQ1512 Task: 01 Date: 4 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 0530

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00	10.00	0.00	0.2	Y	I	JT
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.00	0.00	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	I	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.30 mg/L @ 24.7°C	8.37	0.061	0.2 mg/l	Y	I	JT

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00	10.00	0.00	0.2	Y	I	JT
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.98	0.2	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	I	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.34 mg/L @ 24.5°C	8.39	0.05	0.2 mg/l	Y	I	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JED Project No.: FQ/512 Task: 01 Date: 4 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 1845

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.98	0.2	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	I	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.46 mg/L @ 23.7 °C	8.50	0.034	0.2 mg/l	Y	I	JT

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.92	0.8	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	I	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.45 mg/L @ 23.8 °C	8.48	0.03	0.2 mg/l	Y	I	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100
Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value
Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JED Project No.: FQ1572 Task: 01 Date: 5 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 1900

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.99	0.1	10%	Y	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.099	1.0	5%	N	C	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.434 mg/L @ 23.9 °C	8.47	0.036	0.2 mg/l	Y	I	JT

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.02	0.2	10%	Y	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.099	1.00	5%	N	C	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.434 mg/L @ 23.9 °C	8.47	0.036	0.2 mg/l	Y	I	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JED Project No.: FQ1512 Task: 01 Date: 6 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 20:30

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.02	0.2	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.102	2.0	5%	N	C	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.279 mg/L @ 24.9 °C	8.32	0.04	0.2 mg/l	Y	I	JT

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.05	0.5	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	I	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.263 mg/L @ 25.0 °C	8.29	0.03	0.2 mg/l	Y	I	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JED SWDF Project No.: F8/572 Task: 01 Date: 9 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 1600

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	[illegible]
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	[illegible]
P892502	Nov 2009	pH = 10.00	10.00	0.00	0.2	Y	I	[illegible]
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.00	0.00	10%	N	C	[illegible]
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	N	C	[illegible]
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 9.039 mg/L @ 20.3 °C	9.05		0.2 mg/l			

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	[illegible]
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	[illegible]
P892502	Nov 2009	pH = 10.00	10.00	0.00	0.2	Y	I	[illegible]
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.92	0.8	10%	N	C	[illegible]
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.099	1.00	5%	N	C	[illegible]
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.66 mg/L @ 22.5 °C	8.68	0.02	0.2 mg/l	Y	I	[illegible]

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: IED SWDF Project No.: FQ1572 Task: 01 Date: 10 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 20:00

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.99	0.1	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	I	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 7.88~1 mg/L @ 27.6 °C	7.93	0.05	0.2 mg/l	Y	I	JT

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.95	0.5	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	I	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 7.80 mg/L @ 28.2 °C	7.86	0.06	0.2 mg/l	Y	I	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JED SWDF Project No.: FQ1572 Task: 01 Date: 11 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 1830

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	I	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	I	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.06	0.6	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.094	6.0	5%	N	C	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.04 mg/L @ 26.5 °C	8.09	0.05	0.2 mg/l	Y	I	JT

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.07	0.07	0.2	N	C	JT
P888160	Feb 2010	pH = 7.00	7.01	0.01	0.2	N	C	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	9.94	0.6	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	N	C	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.279 mg/L @ 24.9 °C	8.32	0.041	0.2 mg/l	Y	I	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JED Project No.: FQ1512 Task: 01 Date: 12 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 22:00

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.08	0.08	0.2	N	C	JT
P888160	Feb 2010	pH = 7.00	6.99	0.01	0.2	N	C	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.15	1.5	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	F	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.203 mg/L @ 25.4 °C	8.23	0.027	0.2 mg/l	Y	F	JT

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.09	0.09	0.2	N	C	JT
P888160	Feb 2010	pH = 7.00	7.01	0.01	0.2	N	C	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.02	0.2	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm	0.100	0.00	5%	Y	F	JT
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = 8.158 mg/L @ 25.7 °C	8.18	0.022	0.2 mg/l	Y	F	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JED Project No.: FQ152 Task: 01 Date: 12 Nov 2010

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time:

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00			0.2			
P888160	Feb 2010	pH = 7.00			0.2			
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU			10%			
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm			5%			
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = mg/L @ °C			0.2 mg/l			

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.09	0.09	0.2	N	C	JT
P888160	Feb 2010	pH = 7.00	7.01	0.01	0.2	N	C	JT
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.02	0.2	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm			5%			
6068	Nov 2008	Conductivity = 1.000 mS/cm	1.000	0.00	5%	Y	I	JT
	Per Table →	D.O. = 8.158 mg/L @ 25.7 °C	8.18	0.022	0.2 mg/l	Y	I	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: JEA Project No.: FQ1512 Task: 01 Date: 13 Nov 2008

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: 1530

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00			0.2			
P888160	Feb 2010	pH = 7.00			0.2			
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU			10%			
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm			5%			
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = mg/L @ °C			0.2 mg/l			

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00	4.00	0.00	0.2	Y	F	JT
P888160	Feb 2010	pH = 7.00	7.00	0.00	0.2	Y	F	JT
P892502	Nov 2009	pH = 10.00	10.00	0.00	0.2	Y	F	JT
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU	10.02	0.2	10%	N	C	JT
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm			5%			
6068	Nov 2008	Conductivity = 1.000 mS/cm	1.000	0.00	5%	Y	F	JT
	Per Table →	D.O. = 8.04 mg/L @ 26.5 °C	8.11	0.07	0.2 mg/l	Y	F	JT

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100

Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value

Note (3): Initial, Continual, Final

Field Instrument Calibration Record

Project Name: _____ Project No.: _____ Task: ____ Date: _____

Rental Company: EPS

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AM

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME12953

Time: _____

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00			0.2			
P888160	Feb 2010	pH = 7.00			0.2			
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU			10%			
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm			5%			
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = mg/L @ °C			0.2 mg/l			

Water Quality Instrument Make: YSI Instrument Model Number: 556 Instrument Serial Number: 06A2173AL

Turbidity Instrument Make: LaMotte Instrument Model Number: 2020e Instrument Serial Number: ME10404

Calibration Standard			Instrument Response	Percent Deviation(1) or Difference	Allowable Deviation(2)	Calibrated? Yes or No	Type of Calibration(3)	Calibration Performed By:
Lot No.	Expiration Date	Standard Value						
P887599	Jan 2010	pH = 4.00			0.2			
P888160	Feb 2010	pH = 7.00			0.2			
P892502	Nov 2009	pH = 10.00			0.2			
P890567	Dec 2009	Turbidity = 0.0 NTU						
		Turbidity = 1.0 NTU			10%			
P891234	Feb 2010	Turbidity = 10 NTU			10%			
		Turbidity = 50 NTU			6.5%			
7410	Oct. 2009	Conductivity = 0.100 mS/cm			5%			
6068	Nov 2008	Conductivity = 1.000 mS/cm			5%			
	Per Table →	D.O. = mg/L @ °C			0.2 mg/l			

Note (1): Percent Deviation = (Standard Value – Instrument Response) ÷ Standard Value x 100
Note (2): Allowable Deviation: pH ± 0.2 of Standard Value; Conductivity ± 5 % of Standard Value; Salinity ± 3 % of Standard Value; DO ± 0.2 mg/L; Turbidity 0.1-10 NTU ± 10% of Standard Value, 11-40 NTU ±8% of Standard Value, 41-100 NTU ± 6.5% of Standard Value, >100 NTU ±5% of Standard Value
Note (3): Initial, Continual, Final

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SR #

CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 0 1 2 3 0 0 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	TOC	Metals	NH_3, T-Ph, TKN, COD	TDS, TSS, NO_3, NO_2, BOD	Chlorophyll A	Fecal Coliform	REMARKS/ ALTERNATE DESCRIPTION
SW-3		11-7-08	1030	SW	12	X	X	X	X	X	X	X	X	
SW-4		11-7-08	1000	SW	12	X	X	X	X	X	X	X	X	
Trip blank		10-27-08		W	3	X								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn Acetate
6. MeOH
7. $NaHSO_4$
8. Other $Na_2S_2O_3$

SPECIAL INSTRUCTIONS/COMMENTS

	Temp. (°C)	pH
SW-3	17.56	6.06
SW-4	18.00	4.70

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP

CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: [illegible]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-7-08/1255	Date/Time: 11-7-08 1255	Date/Time	Date/Time	Date/Time	Date/Time

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SR #

CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosynrec.com
Company/Address: Geosynrec, 14055 Riverdge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813 558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	9011	NH_3	Metals	TDS, Cl, NO_3										REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0										
MW-2A		11-6-08	1535	GW	9	X	X	X	X	X										
MW-2B			1615																	
MW-2C			1545																	
MW-3A			1100																	
MW-3B			1120																	
MW-3C			1040																	
MW-4A			0800																	
MW-4B			0815																	
MW-4C			0900																	
Trip Blank				W	3															

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: [illegible] CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: [illegible]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosynrec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11/7/08 - 1255	Date/Time: 11-7-08 1255	Date/Time	Date/Time	Date/Time	Date/Time

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CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdale Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813 558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	BOD (CBOD)	NH_3	Metals (Cr, Ni)											REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0										
CS-1		11-6-08	1355	soil	7	X	X	X	X	X										
CS-2		11-6-08	1420	soil	7	X	X	X	X	X										

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP ____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: [illegible]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-7-08/1255	Date/Time: 11-7-08 1255	Date/Time	Date/Time	Date/Time	Date/Time

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CAS Contact

Project Name: JED SCUDF	Project Number: F0/512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH3	Metals	TDS, Cl, NO3														REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0														
MW-13A		11-4-08	0845	GW	9	X	X	X	X	X														
MW-13B			0847																					
MW-13C			0805																					
MW-12A			1020																					
MW-12B			1055																					
MW-12C			1010																					
MW-11A			1230																					
MW-11B			1325																					
MW-11C			1250																					
MW-10A			1450																					

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
COC for contents of 2 coolers

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Joe Terry	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Geosyntec	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 11-4-08/1700	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

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CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdale Dr. Tampa, FL 33637	341 300
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH_3	Metals	TDS, Cl, NO_3											REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0											
MW-10B		11-1-08	1510	GW	9	X	X	X	X	X											
MW-10C		11-1-08	1530	GW	9	X	X	X	X	X											
Trip Blank				W	3	X															

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm	Firm	Firm	Firm	Firm
Date/Time: 11-4-08/1700	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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SR #

CAS Contact

Project Name: JED SWDF	Project Number: F81512
Project Manager: Kirk Wilk	Email Address: kwilk@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdale D. Ste 300, Tampa, FL 33637	
Phone #: 813 558 0990	FAX#: 813 558 9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 0 3 2 0 2

Preservative Key: 0. NONE 1. HCL 2. HNO_3 3. H_2SO_4 4. NaOH 5. Zn. Acetate 6. MeOH 7. $NaHSO_4$ 8. Other

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH_3	Metals	TDS, Cl, SO_4	Dissolved Metals	REMARKS/ ALTERNATE DESCRIPTION
MW-9A		11.5.08	0815	GW	9	X	X	X	X	X		
MW-9B			0905		9							
MW-9C			0845		9							
MW-8A			1055		9							
MW-8B			1125		10						X	
MW-8C			1040		9							
MW-7A			1305		9							
MW-7B			1355		9							
MW-7C			1315		9							
MW-5A			1505		9							

SPECIAL INSTRUCTIONS/COMMENTS: COC for contents of 2 coolers

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP:

CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Joe Terry	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Geosyntec	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 11.5.08/1630	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

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An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 2 OF 2

SR #

CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosynterra.com
Company/Address: Geosynterra, 14055 Riverdge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	Mtls	Metals	TDS, Cl, Alk	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0	
MW-5B		11-5-08	1540	GW	9	X	X	X	X	X	
MW-5C		11-5-08	1520	GW	9	X	X	X	X	X	
DUP-1		11-5-08		GW	9	X	X	X	X	X	
Trip Blank				W	3	X					

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosynterra	Firm	Firm	Firm	Firm	Firm
Date/Time: 11-5-08/1630	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 1

SR #:

CAS Contact:

Project Name: JED SWDF	Project Number: FQ152
Project Manager: Kirk Wills	Email Address: kwills@geosynyec.com
Company/Address: Geosynyec, 14055 Riverdale Dr. Ste. 300, Tampa, FL 33637	
Phone #: 813 558-0990	FAX#: 813 558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260 (PRESERVATIVE 1)	8011 (PRESERVATIVE 0)	NH_3 (PRESERVATIVE 3)	Metals (PRESERVATIVE 2)	TDS, Cl, NO_3 (PRESERVATIVE 0)	Dissolved Metals (PRESERVATIVE 2)	REMARKS/ ALTERNATE DESCRIPTION
MW-23A		11-10-09	0845	GW	9	X	X	X	X	X		
MW-23B			0855		9							
MW-23C			0935		9							
MW-22A			1135		9							
MW-22B			1230		10						X	
MW-22C			1150		9							
MW-21A			1510		9							
MW-21B			1530		9							
MW-21C			1455		10						X	
Trip Blank				W	3							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Joe Terry	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Geosynyec	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 11-10-09/1645	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 2

SR #

CAS Contact

Project Name: JED SWDF	Project Number: F81512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdge Dr Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9776
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	SOIL	NH3	Metals	TDS, Cl, NO3	REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0	
Equipment Blank		11-11-08	0730	W	9	X	X	X	X	X	
Trip Blank				W	3	X					

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Joe Terry	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Geosyntec	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 11-11-08/1600	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 2

SR #

CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdge Dr. Ste. 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH_3	Metals	TAS, Cl, NO_3	Dissolved Metals											REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0	2											
MW-20A		11-11-08	1005	GW	8	X	X	X	X	X												
MW-20B			0935		10						X											
MW-20C			0910		10						X											
MW-16A			1250		9																	
MW-16B			1230		10						X											
MW-16C			1150		9																	
MW-17A			1425		9																	
MW-17B			1415		9																	
MW-17C			1450		9																	
DUP-2					9																	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

COC for contents of 2 coolers

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Joe Terry	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Geosyntec	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 11-11-08 / 1600	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 1 OF 1

SR #:

CAS Contact:

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdale Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0950	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH_3	Metals	TSS, Cl, NO_3	Dissolved Metals													REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0	2													
MW-19A		11.12.08	0955	GW	9	X	X	X	X	X														
MW-19B			1015		9																			
MW-19C			1210		10						X													
MW-18A			0820		9																			
MW-18B			0900		9																			
MW-18C			0910		9																			
Trip Blank				W	3																			

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Joe Terry	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Geosyntec	Firm:	Firm:	Firm:	Firm:	Firm:
Date/Time: 11.12.08/1530	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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APPENDIX D

COLUMBIA-JACKSONVILLE LABORATORY CERTIFICATIONS

State of Florida

Department of Health, Bureau of Laboratories

This is to certify that

E82502
COLUMBIA ANALYTICAL SERVICES, INC. - FL
8540 BAYCENTER ROAD
JACKSONVILLE, FL 32256

has complied with Florida Administrative Code 64E-1,
for the examination of Environmental samples in the following categories

DRINKING WATER - GROUP II UNREGULATED CONTAMINANTS, DRINKING WATER - MICROBIOLOGY, DRINKING WATER - OTHER REGULATED CONTAMINANTS, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE July 01, 2007 THROUGH June 30, 2008

Max Salfinger, M.D.
Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE E82502-07-7/1/2007
Supersedes all previously issued certificates

Laboratory Scope of Accreditation

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,1,1-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
1,1,2,2-Tetrachloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,1,2-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
1,1-Dichloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,1-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
1,1-Dichloropropene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,2,3-Trichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,2,3-Trichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,2,4-Trichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
1,2,4-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,2-Dichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
1,2-Dichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
1,2-Dichloropropane	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
1,3,5-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,3-Dichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,3-Dichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
1,4-Dichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
2,2-Dichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
2-Chlorotoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
4-Chlorotoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
4-Isopropyltoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Alkalinity as CaCO3	SM 2320 B	Primary Inorganic Contaminants	NELAP	7/25/2005
Aluminum	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/19/2002
Aluminum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	2/19/2002
Antimony	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Arsenic	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Barium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/19/2002
Barium	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Benzene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Beryllium	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Bromobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Bromochloromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Bromodichloromethane	EPA 524.2	Other Regulated Contaminants,Group II Unregulated Contaminants	NELAP	2/19/2002

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Bromoform	EPA 524.2	Other Regulated Contaminants,Group II Unregulated Contaminants	NELAP	2/19/2002
Cadmium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/19/2002
Cadmium	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Calcium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/19/2002
Carbon tetrachloride	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Chloride	EPA 300.0	Secondary Inorganic Contaminants	NELAP	2/19/2002
Chlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Chloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Chloroform	EPA 524.2	Other Regulated Contaminants,Group II Unregulated Contaminants	NELAP	2/19/2002
Chromium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/19/2002
Chromium	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
cis-1,2-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
cis-1,3-Dichloropropene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Color	EPA 110.2	Secondary Inorganic Contaminants	NELAP	2/19/2002
Conductivity	SM 2510 B	Primary Inorganic Contaminants	NELAP	8/30/2002
Copper	EPA 200.7	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	2/19/2002
Copper	EPA 200.8	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	2/19/2002
Cyanide	SM 4500CN-E	Primary Inorganic Contaminants	NELAP	2/19/2002
Dibromochloromethane	EPA 524.2	Other Regulated Contaminants,Group II Unregulated Contaminants	NELAP	2/19/2002
Dibromomethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Dichlorodifluoromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/21/2003
Dichloromethane (DCM, Methylene chloride)	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Ethylbenzene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Fluoride	EPA 300.0	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	2/19/2002
Fluoride	SM 4500 F-C	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	2/19/2002
Heterotrophic plate count	SM 9215 B	Microbiology	NELAP	9/22/2004
Hexachlorobutadiene	EPA 524.2	Group II Unregulated Contaminants	NELAP	7/25/2005
Iron	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/19/2002

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Isopropylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	7/25/2005
Lead	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Magnesium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/19/2002
Manganese	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/19/2002
Manganese	EPA 200.8	Secondary Inorganic Contaminants	NELAP	2/19/2002
Mercury	EPA 245.1	Primary Inorganic Contaminants	NELAP	2/19/2002
Methyl bromide (Bromomethane)	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Methyl chloride (Chloromethane)	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Methyl tert-butyl ether (MTBE)	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Naphthalene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
n-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Nickel	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/19/2002
Nickel	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Nitrate	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/19/2002
Nitrate as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	7/25/2005
Nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/19/2002
Nitrite as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	7/25/2005
n-Propylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Odor	EPA 140.1	Secondary Inorganic Contaminants	NELAP	2/19/2002
pH	EPA 150.1	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	2/19/2002
sec-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Selenium	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Silver	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/19/2002
Silver	EPA 200.8	Secondary Inorganic Contaminants	NELAP	2/19/2002
Sodium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/19/2002
Styrene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Sulfate	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	2/19/2002
Surfactants - MBAS	EPA 425.1	Secondary Inorganic Contaminants	NELAP	2/19/2002
tert-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Tetrachloroethylene (Perchloroethylene)	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Thallium	EPA 200.8	Primary Inorganic Contaminants	NELAP	2/19/2002
Toluene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Total coliforms	SM 9222 B	Microbiology	NELAP	2/19/2002
Total coliforms & E. coli	COLITAG	Microbiology	NELAP	7/25/2005

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Total cyanide	EPA 335.4	Primary Inorganic Contaminants	NELAP	7/25/2005
Total dissolved solids	EPA 160.1	Secondary Inorganic Contaminants	NELAP	2/19/2002
Total nitrate-nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/19/2002
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	7/25/2005
Total trihalomethanes	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
trans-1,2-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
trans-1,3-Dichloropropylene	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Trichloroethene (Trichloroethylene)	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Trichlorofluoromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2/19/2002
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	2/19/2002
Vinyl chloride	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Xylene (total)	EPA 524.2	Other Regulated Contaminants	NELAP	2/19/2002
Zinc	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/19/2002
Zinc	EPA 200.8	Secondary Inorganic Contaminants	NELAP	2/19/2002

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State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	2/19/2002
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	2/19/2002
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	2/19/2002
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	2/19/2002
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	2/19/2002
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/25/2005
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	2/19/2002
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/25/2005
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	2/19/2002
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	2/19/2002
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	2/19/2002
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	2/19/2002
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/25/2005
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	2/19/2002
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	2/19/2002

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State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dinitrobenzene (1,3-DNB)	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	2/19/2002
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	2/19/2002
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dioxane (1,4-Diethyleneoxide)	CASF SOC-8270CSIM Rev. 1 (5/23/05)/GC-MS	Extractable Organics	NELAP	8/26/2005
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Phenylenediamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1-Chlorohexane	EPA 8260	Volatile Organics	NELAP	7/25/2005
1-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1-Methylnaphthalene	CASF SOC-SVOAMS Rev. 0 (3/29/04)/GC-MS	Extractable Organics	NELAP	8/26/2005
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	2/19/2002
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	2/19/2002
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	2/19/2002
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	NCASI 99.01	Volatile Organics	NELAP	4/9/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	2/19/2002

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E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	2/19/2002
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitropropane	EPA 8260	Volatile Organics	NELAP	7/25/2005
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	2/19/2002
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	2/19/2002
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	2/19/2002
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	2/19/2002
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003

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State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
a-a-Dimethylphenethylamine	EPA 8270	Extractable Organics	NELAP	7/25/2005
Acenaphthene	EPA 625	Extractable Organics	NELAP	2/19/2002
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 625	Extractable Organics	NELAP	2/19/2002
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acetaldehyde	NCASI 99.01	Volatile Organics	NELAP	4/9/2003
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acidity, as CaCO3	EPA 305.1	General Chemistry	NELAP	2/19/2002
Acrolein (Propenal)	EPA 624	Volatile Organics	NELAP	7/25/2005
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrylonitrile	EPA 624	Volatile Organics	NELAP	7/25/2005
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Aldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Alkalinity as CaCO3	EPA 310.1	General Chemistry	NELAP	2/19/2002
Alkalinity as CaCO3	SM 2320 B	General Chemistry	NELAP	7/25/2005
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aluminum	EPA 200.7	Metals	NELAP	2/19/2002
Aluminum	EPA 200.8	Metals	NELAP	2/19/2002
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	7/1/2003
Amenable cyanide	EPA 9012	General Chemistry	NELAP	9/22/2004
Ammonia as N	EPA 350.1	General Chemistry	NELAP	8/30/2002

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E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 625	Extractable Organics	NELAP	2/19/2002
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	2/19/2002
Antimony	EPA 200.8	Metals	NELAP	2/19/2002
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	7/1/2003
Aramite	EPA 8270	Extractable Organics	NELAP	7/1/2003
Aroclor-1016 (PCB-1016)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1232 (PCB-1232)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Arsenic	EPA 200.7	Metals	NELAP	2/19/2002
Arsenic	EPA 200.8	Metals	NELAP	2/19/2002
Arsenic	EPA 6010	Metals	NELAP	2/19/2002
Arsenic	EPA 6020	Metals	NELAP	2/19/2002
Barium	EPA 200.7	Metals	NELAP	2/19/2002
Barium	EPA 200.8	Metals	NELAP	2/19/2002
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	7/1/2003
Benzene	EPA 624	Volatile Organics	NELAP	2/19/2002
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 625	Extractable Organics	NELAP	2/19/2002
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	2/19/2002
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	2/19/2002
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	2/19/2002
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	2/19/2002
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	2/19/2002
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	2/19/2002
Beryllium	EPA 200.8	Metals	NELAP	2/19/2002
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	7/1/2003
beta-BHC (beta-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
beta-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Biochemical oxygen demand	EPA 405.1	General Chemistry	NELAP	2/19/2002
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	2/19/2002
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	2/19/2002
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 625	Extractable Organics	NELAP	2/19/2002
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	2/19/2002
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	2/19/2002
Boron	EPA 6010	Metals	NELAP	7/1/2003
Bromide	EPA 300.0	General Chemistry	NELAP	2/19/2002
Bromide	EPA 9056	General Chemistry	NELAP	7/1/2003
Bromobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	2/19/2002
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 624	Volatile Organics	NELAP	2/19/2002

Laboratory Scope of Accreditation

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	2/19/2002
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	2/19/2002
Cadmium	EPA 200.8	Metals	NELAP	2/19/2002
Cadmium	EPA 6010	Metals	NELAP	2/19/2002
Cadmium	EPA 6020	Metals	NELAP	2/19/2002
Calcium	EPA 200.7	Metals	NELAP	2/19/2002
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	2/19/2002
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	2/19/2002
Chemical oxygen demand	EPA 410.2	General Chemistry	NELAP	2/19/2002
Chlordane (tech.)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Chloride	EPA 300.0	General Chemistry	NELAP	2/19/2002
Chloride	EPA 9056	General Chemistry	NELAP	7/1/2003
Chlorobenzene	EPA 624	Volatile Organics	NELAP	2/19/2002
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chlorobenzilate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Chloroethane	EPA 624	Volatile Organics	NELAP	2/19/2002
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 624	Volatile Organics	NELAP	2/19/2002
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chlorophylls	SM 10200 H	General Chemistry	NELAP	7/25/2005
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	2/19/2002
Chromium	EPA 200.8	Metals	NELAP	2/19/2002
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	7/1/2003
Chromium VI	EPA 7196	General Chemistry	NELAP	7/1/2003
Chromium VI	SM 3500-Cr D (18th/19th Ed.)/COLOR	Metals	NELAP	8/30/2002
Chrysene	EPA 625	Extractable Organics	NELAP	2/19/2002
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	2/19/2002
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	2/19/2002
Cobalt	EPA 200.8	Metals	NELAP	2/19/2002
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	7/1/2003
Color	EPA 110.2	General Chemistry	NELAP	2/19/2002
Conductivity	EPA 120.1	General Chemistry	NELAP	2/19/2002
Copper	EPA 200.7	Metals	NELAP	2/19/2002
Copper	EPA 200.8	Metals	NELAP	2/19/2002
Copper	EPA 6010	Metals	NELAP	2/19/2002
Copper	EPA 6020	Metals	NELAP	2/19/2002
Cyanide	SM 4500CN-E	General Chemistry	NELAP	2/19/2002
delta-BHC	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diallate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dibenz(a, j) acridine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenz(a,h) anthracene	EPA 625	Extractable Organics	NELAP	2/19/2002
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	2/19/2002
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dieldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/25/2005
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	2/19/2002
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethoate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	2/19/2002
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	2/19/2002
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	2/19/2002
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Diphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Disulfoton	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/25/2005
Endosulfan I	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Ethylbenzene	EPA 624	Volatile Organics	NELAP	2/19/2002
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Famphur	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Fecal coliforms	SM 9222 D	Microbiology	NELAP	2/19/2002
Ferrous iron	SM 3500-Fe D (18th/19th Ed.)/COLOR	General Chemistry	NELAP	8/26/2005
Fluoranthene	EPA 625	Extractable Organics	NELAP	2/19/2002
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 625	Extractable Organics	NELAP	2/19/2002
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	2/19/2002
Fluoride	EPA 340.2	General Chemistry	NELAP	2/19/2002
Fluoride	EPA 9056	General Chemistry	NELAP	7/1/2003
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	2/19/2002
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	2/19/2002
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	2/19/2002
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloroethane	EPA 625	Extractable Organics	NELAP	2/19/2002
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorophene	EPA 8270	Extractable Organics	NELAP	7/25/2005
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Ignitability	EPA 1020	General Chemistry	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	2/19/2002
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	2/19/2002
Iron	EPA 6010	Metals	NELAP	7/1/2003
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isodrin	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Isophorone	EPA 625	Extractable Organics	NELAP	2/19/2002
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isosafrole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Kepone	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Kjeldahl nitrogen - total	EPA 351.2	General Chemistry	NELAP	8/30/2002
Lead	EPA 200.7	Metals	NELAP	2/19/2002
Lead	EPA 200.8	Metals	NELAP	2/19/2002
Lead	EPA 6010	Metals	NELAP	2/19/2002
Lead	EPA 6020	Metals	NELAP	2/19/2002
Magnesium	EPA 200.7	Metals	NELAP	2/19/2002
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 200.7	Metals	NELAP	2/19/2002
Manganese	EPA 200.8	Metals	NELAP	2/19/2002
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	7/1/2003
Mercury	EPA 245.1	Metals	NELAP	2/19/2002
Mercury	EPA 7470	Metals	NELAP	2/19/2002
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003

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E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methanol	NCASI 94.03	Volatile Organics	NELAP	4/9/2003
Methanol	NCASI 99.01	Volatile Organics	NELAP	4/9/2003
Methapyrilene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	2/19/2002
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	2/19/2002
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Methyl parathion (Parathion, methyl)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylene chloride	EPA 624	Volatile Organics	NELAP	2/19/2002
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Molybdenum	EPA 200.7	Metals	NELAP	2/19/2002
Molybdenum	EPA 200.8	Metals	NELAP	2/19/2002
Molybdenum	EPA 6010	Metals	NELAP	2/19/2002
Molybdenum	EPA 6020	Metals	NELAP	7/25/2005
Naphthalene	EPA 625	Extractable Organics	NELAP	2/19/2002
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Butyl alcohol	EPA 8260	Volatile Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nickel	EPA 200.7	Metals	NELAP	2/19/2002
Nickel	EPA 200.8	Metals	NELAP	2/19/2002
Nickel	EPA 6010	Metals	NELAP	2/19/2002
Nickel	EPA 6020	Metals	NELAP	2/19/2002
Nitrate	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrate as N	EPA 300.0	General Chemistry	NELAP	2/19/2002
Nitrate as N	EPA 353.2	General Chemistry	NELAP	8/30/2002
Nitrate-nitrite	EPA 300.0	General Chemistry	NELAP	2/19/2002
Nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrite as N	EPA 300.0	General Chemistry	NELAP	2/19/2002
Nitrite as N	EPA 353.2	General Chemistry	NELAP	8/30/2002
Nitrobenzene	EPA 625	Extractable Organics	NELAP	2/19/2002
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003

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8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	2/19/2002
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	2/19/2002
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	2/19/2002
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	7/25/2005
o,o,o-Triethyl phosphorothioate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Oil & Grease	EPA 1664	General Chemistry	NELAP	2/19/2002
Organic nitrogen	EPA 351.2 - EPA 350.1	General Chemistry	NELAP	7/25/2005
Organic nitrogen	EPA 351.4 - EPA 350.3	General Chemistry	NELAP	2/19/2002
Orthophosphate as P	EPA 365.1	General Chemistry	NELAP	8/30/2002
Orthophosphate as P	EPA 365.3	General Chemistry	NELAP	2/19/2002
o-Toluidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
o-Xylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Parathion, ethyl	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
p-Dioxane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachloronitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	2/19/2002
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
pH	EPA 150.1	General Chemistry	NELAP	2/19/2002
Phenacetin	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenanthrene	EPA 625	Extractable Organics	NELAP	2/19/2002
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 625	Extractable Organics	NELAP	2/19/2002
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phorate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Phosphorus, total	EPA 365.1	General Chemistry	NELAP	8/30/2002

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Phosphorus, total	EPA 365.3	General Chemistry	NELAP	2/19/2002
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	7/25/2005
Potassium	EPA 200.7	Metals	NELAP	2/19/2002
Potassium	EPA 6010	Metals	NELAP	2/19/2002
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Propionaldehyde	NCASI 99.01	Volatile Organics	NELAP	4/9/2003
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 625	Extractable Organics	NELAP	2/19/2002
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyridine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Residue-filterable (TDS)	EPA 160.1	General Chemistry	NELAP	2/19/2002
Residue-nonfilterable (TSS)	EPA 160.2	General Chemistry	NELAP	2/19/2002
Residue-settleable	EPA 160.5	General Chemistry	NELAP	2/19/2002
Residue-total	EPA 160.3	General Chemistry	NELAP	2/19/2002
Residue-volatile	EPA 160.4	General Chemistry	NELAP	2/19/2002
Safrole	EPA 8270	Extractable Organics	NELAP	7/1/2003
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Selenium	EPA 200.7	Metals	NELAP	2/19/2002
Selenium	EPA 200.8	Metals	NELAP	2/19/2002
Selenium	EPA 6010	Metals	NELAP	2/19/2002
Selenium	EPA 6020	Metals	NELAP	7/25/2005
Silica-dissolved	EPA 370.1	General Chemistry	NELAP	8/30/2002
Silver	EPA 200.7	Metals	NELAP	2/19/2002
Silver	EPA 200.8	Metals	NELAP	2/19/2002
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	7/1/2003
Sodium	EPA 200.7	Metals	NELAP	2/19/2002
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	2/19/2002
Sulfate	EPA 9056	General Chemistry	NELAP	7/1/2003
Sulfide	EPA 376.1	General Chemistry	NELAP	7/25/2005
Sulfotepp	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/25/2005
Surfactants - MBAS	EPA 425.1	General Chemistry	NELAP	2/19/2002
Tannin & Lignin	SM 5550 B	General Chemistry	NELAP	2/19/2002
tert-Butyl alcohol	EPA 8260	Volatile Organics	NELAP	7/1/2003

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	2/19/2002
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Thallium	EPA 200.7	Metals	NELAP	2/19/2002
Thallium	EPA 200.8	Metals	NELAP	2/19/2002
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	7/1/2003
Thionazin (Zinophos)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Tin	EPA 200.7	Metals	NELAP	8/30/2002
Tin	EPA 6010	Metals	NELAP	7/1/2003
Titanium	CASF MET-ICPMS Rev. 4 (5/20/05)/ICP-MS	Metals	NELAP	8/26/2005
Titanium	EPA 6020	Metals	NELAP	7/25/2005
Toluene	EPA 624	Volatile Organics	NELAP	2/19/2002
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Total coliforms	SM 9222 B	Microbiology	NELAP	2/19/2002
Total cyanide	EPA 335.4	General Chemistry	NELAP	7/25/2005
Total cyanide	EPA 9012	General Chemistry	NELAP	9/22/2004
Total hardness as CaCO3	SM 2340 B	Metals	NELAP	9/30/2002
Total nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	8/30/2002
Total nitrate-nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Total organic carbon	EPA 415.1	General Chemistry	NELAP	2/19/2002
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total Petroleum Hydrocarbons (TPH)	EPA 1664	General Chemistry	NELAP	2/19/2002
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/1/2003
Total Petroleum Hydrocarbons (TPH)	TX1005	Extractable Organics	NELAP	7/1/2003
Toxaphene (Chlorinated camphene)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	2/19/2002
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropylene	EPA 624	Volatile Organics	NELAP	2/19/2002
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	2/19/2002
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	2/19/2002
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003

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Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Turbidity	EPA 180.1	General Chemistry	NELAP	2/19/2002
Un-ionized Ammonia	DEP SOP 10/03/83	General Chemistry	NELAP	2/19/2002
Vanadium	EPA 200.7	Metals	NELAP	2/19/2002
Vanadium	EPA 200.8	Metals	NELAP	2/19/2002
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	7/25/2005
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vinyl chloride	EPA 624	Volatile Organics	NELAP	2/19/2002
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Zinc	EPA 200.7	Metals	NELAP	2/19/2002
Zinc	EPA 200.8	Metals	NELAP	2/19/2002
Zinc	EPA 6010	Metals	NELAP	2/19/2002
Zinc	EPA 6020	Metals	NELAP	2/19/2002

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State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,3-Dinitrobenzene (1,3-DNB)	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	2/19/2002
1,4-Phenylenediamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
1-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	2/19/2002
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	2/19/2002
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002

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Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	2/19/2002
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	2/19/2002
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	2/19/2002
2-Hexanone	EPA 8260	Volatile Organics	NELAP	2/19/2002
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	2/19/2002
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	5/7/2003
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	2/19/2002
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	2/19/2002
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	2/19/2002
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	2/19/2002
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	2/19/2002
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	2/19/2002
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	2/19/2002
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	2/19/2002
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	2/19/2002
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	2/19/2002

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Columbia Analytical Services, Inc. - FL
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Jacksonville, FL 32256

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Acenaphthene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Acetone	EPA 8260	Volatile Organics	NELAP	2/19/2002
Acetonitrile	EPA 8260	Volatile Organics	NELAP	2/19/2002
Acetophenone	EPA 8270	Extractable Organics	NELAP	2/19/2002
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	2/19/2002
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	2/19/2002
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	2/19/2002
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	8/30/2002
Aluminum	EPA 6010	Metals	NELAP	2/19/2002
Aluminum	EPA 6020	Metals	NELAP	2/19/2002
Amenable cyanide	EPA 9012	General Chemistry	NELAP	9/22/2004
Aniline	EPA 8270	Extractable Organics	NELAP	2/19/2002
Anthracene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Antimony	EPA 6010	Metals	NELAP	2/19/2002
Antimony	EPA 6020	Metals	NELAP	2/19/2002
Aramite	EPA 8270	Extractable Organics	NELAP	2/19/2002
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Arsenic	EPA 6010	Metals	NELAP	2/19/2002
Arsenic	EPA 6020	Metals	NELAP	2/19/2002
Barium	EPA 6010	Metals	NELAP	2/19/2002
Barium	EPA 6020	Metals	NELAP	2/19/2002
Benzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Benzidine	EPA 8270	Extractable Organics	NELAP	8/30/2002
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	2/19/2002

Laboratory Scope of Accreditation

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Benzoic acid	EPA 8270	Extractable Organics	NELAP	2/19/2002
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	2/19/2002
Beryllium	EPA 6010	Metals	NELAP	2/19/2002
Beryllium	EPA 6020	Metals	NELAP	2/19/2002
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
beta-Naphthylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	2/19/2002
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	2/19/2002
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	2/19/2002
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	2/19/2002
Boron	EPA 6010	Metals	NELAP	2/19/2002
Bromide	EPA 9056	General Chemistry	NELAP	2/19/2002
Bromobenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Bromoform	EPA 8260	Volatile Organics	NELAP	2/19/2002
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	2/19/2002
Cadmium	EPA 6010	Metals	NELAP	2/19/2002
Cadmium	EPA 6020	Metals	NELAP	2/19/2002
Calcium	EPA 6010	Metals	NELAP	2/19/2002
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	2/19/2002
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	2/19/2002
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Chloride	EPA 9056	General Chemistry	NELAP	2/19/2002
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Chlorobenzilate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Chloroethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Chloroform	EPA 8260	Volatile Organics	NELAP	2/19/2002
Chloroprene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Chromium	EPA 6010	Metals	NELAP	2/19/2002
Chromium	EPA 6020	Metals	NELAP	2/19/2002
Chromium VI	EPA 7196	General Chemistry	NELAP	2/19/2002
Chrysene	EPA 8270	Extractable Organics	NELAP	2/19/2002
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	2/19/2002
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	2/19/2002

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Jacksonville, FL 32256

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Cobalt	EPA 6010	Metals	NELAP	2/19/2002
Cobalt	EPA 6020	Metals	NELAP	2/19/2002
Copper	EPA 6010	Metals	NELAP	2/19/2002
Copper	EPA 6020	Metals	NELAP	2/19/2002
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Diallate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Dibenz(a, j) acridine	EPA 8270	Extractable Organics	NELAP	2/19/2002
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	2/19/2002
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Dibromomethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	2/19/2002
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	2/19/2002
Dimethoate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	2/19/2002
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	2/19/2002
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	2/19/2002
Diphenylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	2/19/2002
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	2/19/2002
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Famphur	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Fluoranthene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Fluorene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Fluoride	EPA 9056	General Chemistry	NELAP	2/19/2002
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	8/30/2002
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	2/19/2002
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	2/19/2002
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Ignitability	EPA 1020	General Chemistry	NELAP	2/19/2002
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	2/19/2002
Iron	EPA 6010	Metals	NELAP	2/19/2002
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8015	Volatile Organics	NELAP	2/19/2002
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	2/19/2002
Isodrin	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Isophorone	EPA 8270	Extractable Organics	NELAP	2/19/2002
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Isosafrole	EPA 8270	Extractable Organics	NELAP	2/19/2002
Kepone	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Lead	EPA 6010	Metals	NELAP	2/19/2002
Lead	EPA 6020	Metals	NELAP	2/19/2002
Magnesium	EPA 6010	Metals	NELAP	2/19/2002
Manganese	EPA 6010	Metals	NELAP	2/19/2002
Manganese	EPA 6020	Metals	NELAP	2/19/2002
Mercury	EPA 7471	Metals	NELAP	2/19/2002
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	2/19/2002
Methanol	EPA 8015	Volatile Organics	NELAP	2/19/2002
Methapyrilene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	2/19/2002
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	2/19/2002
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	2/19/2002
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	2/19/2002
Methyl parathion (Parathion, methyl)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	8/30/2002
Methylene chloride	EPA 8260	Volatile Organics	NELAP	2/19/2002
Molybdenum	EPA 6010	Metals	NELAP	2/19/2002

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Molybdenum	EPA 6020	Metals	NELAP	7/25/2005
Naphthalene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Naphthalene	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Butyl alcohol	EPA 8015	Volatile Organics	NELAP	2/19/2002
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Nickel	EPA 6010	Metals	NELAP	2/19/2002
Nickel	EPA 6020	Metals	NELAP	2/19/2002
Nitrate	EPA 9056	General Chemistry	NELAP	2/19/2002
Nitrite	EPA 9056	General Chemistry	NELAP	2/19/2002
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	8/30/2002
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	2/19/2002
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	2/19/2002
o,o,o-Triethyl phosphorothioate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
o-Toluidine	EPA 8270	Extractable Organics	NELAP	2/19/2002
o-Xylene	EPA 8260	Volatile Organics	NELAP	8/30/2002
Parathion, ethyl	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
p-Dioxane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Pentachloronitrobenzene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
pH	EPA 9045	General Chemistry	NELAP	2/19/2002
Phenacetin	EPA 8270	Extractable Organics	NELAP	2/19/2002
Phenanthrene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Phenol	EPA 8270	Extractable Organics	NELAP	2/19/2002
Phorate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Potassium	EPA 6010	Metals	NELAP	2/19/2002
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	2/19/2002
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	2/19/2002

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Pyrene	EPA 8270	Extractable Organics	NELAP	2/19/2002
Pyridine	EPA 8270	Extractable Organics	NELAP	2/19/2002
Safrole	EPA 8270	Extractable Organics	NELAP	2/19/2002
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Selenium	EPA 6010	Metals	NELAP	2/19/2002
Selenium	EPA 6020	Metals	NELAP	7/25/2005
Silver	EPA 6010	Metals	NELAP	2/19/2002
Silver	EPA 6020	Metals	NELAP	2/19/2002
Sodium	EPA 6010	Metals	NELAP	2/19/2002
Styrene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Sulfate	EPA 9056	General Chemistry	NELAP	2/19/2002
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	2/19/2002
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	2/19/2002
Thallium	EPA 6010	Metals	NELAP	2/19/2002
Thallium	EPA 6020	Metals	NELAP	2/19/2002
Thionazin (Zinophos)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/19/2002
Tin	EPA 6010	Metals	NELAP	8/30/2002
Toluene	EPA 8260	Volatile Organics	NELAP	2/19/2002
Total cyanide	EPA 9012	General Chemistry	NELAP	9/22/2004
Total nitrate-nitrite	EPA 9056	General Chemistry	NELAP	2/19/2002
Total organic carbon	EPA 9060	General Chemistry	NELAP	8/30/2002
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	2/19/2002
Total Petroleum Hydrocarbons (TPH)	TX1005	Extractable Organics	NELAP	2/19/2002
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/7/2003
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	2/19/2002
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	2/19/2002
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	2/19/2002
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	8/30/2002
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	2/19/2002
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	2/19/2002
Vanadium	EPA 6010	Metals	NELAP	2/19/2002
Vanadium	EPA 6020	Metals	NELAP	7/25/2005
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	2/19/2002
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	2/19/2002
Xylene (total)	EPA 8260	Volatile Organics	NELAP	2/19/2002

Attachment to Certificate #: E82502-07, expiration date June 30, 2008. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E82502 EPA Lab Code: FL00937 (904) 739-2277

E82502
Columbia Analytical Services, Inc. - FL
8540 Baycenter Road
Jacksonville, FL 32256

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Zinc	EPA 6010	Metals	NELAP	2/19/2002
Zinc	EPA 6020	Metals	NELAP	2/19/2002

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

November 17, 2008 Service Request No: J0805339

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 5, 2008. For your reference, these analyses have been assigned our service request number **J0805339**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805339
Project:	JED SWDF	**Date Received:**	11/5/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Twelve water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/5/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analyte in Second Source Verification (SSV) CAL1649: trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Continuing Calibration Verification Exceptions

The primary evaluation criterion was exceeded for the following analyte in the Continuing Calibration Verification (CCV) JWG0804215-2: Trichlorofluoromethane. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further action was taken.

Lab Control Sample Exceptions

The spike recovery of Trichlorofluoromethane for the Laboratory Control Sample (LCS) JWG0804213-3 was outside the lower control criterion. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

The spike recovery of trans-1,4-Dichloro-2-butene for the Laboratory Control Sample (LCS) JWG0804213-3 was outside the upper control criterion. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Approved by Clay R Myers **Date** 11/17/08

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. The following observations were made regarding this delivery group.

Matrix Spike Recovery Exceptions

The control criteria for matrix spike recoveries of Iron for sample MW-13A are not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Batch QC Notes and Discussion

Quality control samples for Mercury analysis (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA Methods. No problems were observed.

Approved by Craig R Hy **Date** 11/17/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805339

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805339-001	MW-13A	11/4/08	08:15
J0805339-002	MW-13B	11/4/08	08:47
J0805339-003	MW-13C	11/4/08	08:05
J0805339-004	MW-12A	11/4/08	10:20
J0805339-005	MW-12B	11/4/08	10:55
J0805339-006	MW-12C	11/4/08	10:10
J0805339-007	MW-11A	11/4/08	12:30
J0805339-008	MW-11B	11/4/08	13:25
J0805339-009	MW-11C	11/4/08	12:50
J0805339-010	MW-10A	11/4/08	14:50
J0805339-011	MW-10B	11/4/08	15:10
J0805339-012	MW-10C	11/4/08	15:30
J0805339-013	Trip Blank	11/4/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-13A
Lab Code: J0805339-001

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	**3.8**	I	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-13A
Lab Code: J0805339-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/05/08	Acceptable
Dibromofluoromethane	99	82-116	11/05/08	Acceptable
Toluene-d8	108	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-13B
Lab Code: J0805339-002

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	**120**		50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-13B
Lab Code: J0805339-002

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/05/08	Acceptable
Dibromofluoromethane	100	82-116	11/05/08	Acceptable
Toluene-d8	105	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-13C
Lab Code: J0805339-003

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-13C
Lab Code: J0805339-003

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	107	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-12A
Lab Code: J0805339-004

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	**0.53**	I	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	**2.4**	I	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-12A
Lab Code: J0805339-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	106	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-12B
Lab Code: J0805339-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-12B
Lab Code: J0805339-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/05/08	Acceptable
Dibromofluoromethane	100	82-116	11/05/08	Acceptable
Toluene-d8	106	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-12C
Lab Code: J0805339-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-12C
Lab Code: J0805339-006

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	107	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-11A
Lab Code: J0805339-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	**0.74**	I	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	**2.5**	I	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	**0.59**	I	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	**1.8**		1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	**0.77**	I	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-11A
Lab Code: J0805339-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	**0.53**	I	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	96	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	105	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-11B
Lab Code: J0805339-008

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-11B
Lab Code: J0805339-008

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	95	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	106	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-11C
Lab Code: J0805339-009

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-11C
Lab Code: J0805339-009

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	107	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10A
Lab Code: J0805339-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	**0.64**	I	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	**3.2**	I	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	**0.94**	I	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	**1.3**		1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10A
Lab Code: J0805339-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/05/08	Acceptable
Dibromofluoromethane	100	82-116	11/05/08	Acceptable
Toluene-d8	107	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10B
Lab Code: J0805339-011

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	**3.6**	I	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10B
Lab Code: J0805339-011

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	107	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10C
Lab Code: J0805339-012

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10C
Lab Code: J0805339-012

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/05/08	Acceptable
Dibromofluoromethane	101	82-116	11/05/08	Acceptable
Toluene-d8	106	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805339-013

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805339-013

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/05/08	Acceptable
Dibromofluoromethane	100	82-116	11/05/08	Acceptable
Toluene-d8	107	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804213-4

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
Vinyl Chloride	ND	U	1.0	0.25	1	11/05/08	11/05/08	JWG0804213	
Bromomethane	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroethane	ND	U	5.0	0.19	1	11/05/08	11/05/08	JWG0804213	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/05/08	11/05/08	JWG0804213	J(3)
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/05/08	11/05/08	JWG0804213	
Acetone	ND	U	50	2.4	1	11/05/08	11/05/08	JWG0804213	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/05/08	11/05/08	JWG0804213	
Carbon Disulfide	ND	U	10	0.84	1	11/05/08	11/05/08	JWG0804213	
Methylene Chloride	ND	U	5.0	0.72	1	11/05/08	11/05/08	JWG0804213	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/05/08	11/05/08	JWG0804213	
Acrylonitrile	ND	U	10	0.59	1	11/05/08	11/05/08	JWG0804213	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/05/08	11/05/08	JWG0804213	
Vinyl Acetate	ND	U	10	0.60	1	11/05/08	11/05/08	JWG0804213	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
2-Butanone (MEK)	ND	U	10	0.56	1	11/05/08	11/05/08	JWG0804213	
Bromochloromethane	ND	U	5.0	0.14	1	11/05/08	11/05/08	JWG0804213	
Chloroform	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Benzene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/05/08	11/05/08	JWG0804213	
Dibromomethane	ND	U	5.0	0.12	1	11/05/08	11/05/08	JWG0804213	
Bromodichloromethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/05/08	11/05/08	JWG0804213	
Toluene	ND	U	1.0	0.52	1	11/05/08	11/05/08	JWG0804213	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/05/08	11/05/08	JWG0804213	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/05/08	11/05/08	JWG0804213	
2-Hexanone	ND	U	25	0.36	1	11/05/08	11/05/08	JWG0804213	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804213-4

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/05/08	11/05/08	JWG0804213	
Chlorobenzene	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Ethylbenzene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
m,p-Xylenes	ND	U	2.0	0.22	1	11/05/08	11/05/08	JWG0804213	
o-Xylene	ND	U	1.0	0.10	1	11/05/08	11/05/08	JWG0804213	
Styrene	ND	U	1.0	0.051	1	11/05/08	11/05/08	JWG0804213	
Bromoform	ND	U	2.0	0.12	1	11/05/08	11/05/08	JWG0804213	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/05/08	11/05/08	JWG0804213	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/05/08	11/05/08	JWG0804213	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/05/08	11/05/08	JWG0804213	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/05/08	11/05/08	JWG0804213	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/05/08	11/05/08	JWG0804213	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/05/08	11/05/08	JWG0804213	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/05/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/05/08	Acceptable
Dibromofluoromethane	100	82-116	11/05/08	Acceptable
Toluene-d8	108	88-117	11/05/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-13A	**Units:**	ug/L
Lab Code:	J0805339-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	118	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-13B	**Units:**	ug/L
Lab Code:	J0805339-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	117	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-13C	**Units:**	ug/L
Lab Code:	J0805339-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	119	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-12A	**Units:**	ug/L
Lab Code:	J0805339-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	122	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-12B	**Units:**	ug/L
Lab Code:	J0805339-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	119	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-12C	**Units:**	ug/L
Lab Code:	J0805339-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	119	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-11A	**Units:**	ug/L
Lab Code:	J0805339-007	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	114	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-11B	**Units:**	ug/L
Lab Code:	J0805339-008	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	120	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-11C	**Units:**	ug/L
Lab Code:	J0805339-009	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	118	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-10A	**Units:**	ug/L
Lab Code:	J0805339-010	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	117	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-10B	**Units:**	ug/L
Lab Code:	J0805339-011	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	133	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	11/04/2008
Sample Matrix:	Water	**Date Received:**	11/05/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-10C	**Units:**	ug/L
Lab Code:	J0805339-012	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	133	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804235-3	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/10/08	JWG0804235	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/10/08	JWG0804235	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	126	77-150	11/10/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-13A
Lab Code: J0805339-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	0.6	i
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	16	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	8.8	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	3.3	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.8	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	13800	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.7	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	3.7	i
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-13B
Lab Code: J0805339-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	0.20	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	12	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.4	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.7	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	836	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	1.0	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	0.08	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-13C
Lab Code: J0805339-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	19	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.0	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	576	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-12A
Lab Code: J0805339-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	2.4	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	11	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.6	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.8	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	1030	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	2.0	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	1.4	i
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-12B
Lab Code: J0805339-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	0.41	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	35	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.3	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.4	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	1070	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	1.0	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-12C
Lab Code: J0805339-006

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	25	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.2	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	704	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.9	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-11A
Lab Code: J0805339-007

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	19	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	13	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	4.6	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	1.1	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.4	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	18000	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.3	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	1.3	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	3.9	i
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-11B
Lab Code: J0805339-008

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	0.67	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	24	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.4	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	570	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.7	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	2.4	i
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-11C
Lab Code: J0805339-009

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	9.6	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.0	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	560	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-10A
Lab Code: J0805339-010

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	1.9	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	2.1	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	2.6	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	2.5	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	432	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.6	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	0.09	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	1.0	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	0.7	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	7	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-10B
Lab Code: J0805339-011

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	0.35	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	14	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	0.9	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.2	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	534	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/4/2008
Date Received: 11/5/2008

Total Metals

Sample Name: MW-10C
Lab Code: J0805339-012

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	0.58	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	30	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	886	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.3	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	2.1	i
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: N/A
Date Received: N/A

Total Metals

Sample Name: Method Blank
Lab Code: MB2-1111

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	U	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/11/2008	11/12/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/10/2008	11/10/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805339
Date Collected: 11/04/2008
Date Received: 11/05/2008

Total Metals
Sodium

Prep Method: EPA 3010A
Analysis Method: 6010B
Test Notes:

Units: mg/L
Basis: N/A

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-13A	J0805339-001	0.50	0.02	1.0	11/11/2008	11/12/2008	9.3	
MW-13B	J0805339-002	0.50	0.02	1.0	11/11/2008	11/12/2008	8.8	
MW-13C	J0805339-003	0.50	0.02	1.0	11/11/2008	11/12/2008	7.7	
MW-12A	J0805339-004	0.50	0.02	1.0	11/11/2008	11/12/2008	11	
MW-12B	J0805339-005	0.50	0.02	1.0	11/11/2008	11/12/2008	8.2	
MW-12C	J0805339-006	0.50	0.02	1.0	11/11/2008	11/12/2008	5.7	
MW-11A	J0805339-007	0.50	0.02	1.0	11/11/2008	11/12/2008	14	
MW-11B	J0805339-008	0.50	0.02	1.0	11/11/2008	11/12/2008	14	
MW-11C	J0805339-009	0.50	0.02	1.0	11/11/2008	11/12/2008	11	
MW-10A	J0805339-010	0.50	0.02	1.0	11/11/2008	11/12/2008	10	
MW-10B	J0805339-011	0.50	0.02	1.0	11/11/2008	11/12/2008	9.1	
MW-10C	J0805339-012	0.50	0.02	1.0	11/11/2008	11/12/2008	6.8	
Method Blank	MB1-1111	0.50	0.02	1.0	11/11/2008	11/12/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-13A
Lab Code : J0805339-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	1.5	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	11	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 17:17	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-13B
Lab Code : J0805339-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.13	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	13	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 18:32	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	46	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-13C
Lab Code : J0805339-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.13	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	12	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 18:47	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	41	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-12A
Lab Code : J0805339-004
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.29	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	9.2	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 19:02	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	73	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-12B
Lab Code : J0805339-005
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.14	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	18	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 19:17	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	60	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-12C
Lab Code : J0805339-006
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.12	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	8.2	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 19:32	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	41	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-11A
Lab Code : J0805339-007
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	8.8	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	17	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 19:47	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	200	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-11B
Lab Code : J0805339-008
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.055	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	15	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 20:02	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	63	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-11C
Lab Code : J0805339-009
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.090	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	17	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 21:31	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	79	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-10A
Lab Code : J0805339-010
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.1	0.04	2	11/05/08 15:02	12	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	18	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 21:46	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	140	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-10B
Lab Code : J0805339-011
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.12	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	11	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 22:01	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:30	57	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08

Inorganic Parameters

Sample Name : MW-10C
Lab Code : J0805339-012
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	0.15	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	7.5	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 22:16	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:30	39	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805339-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/05/08 15:02	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/05/08 15:02	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/05/08 15:02	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:15	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/06/08 14:30	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
MW-13A	J0805339-001	96	94	99	108
MW-13B	J0805339-002	98	93	100	105
MW-13C	J0805339-003	99	92	101	107
MW-12A	J0805339-004	97	94	101	106
MW-12B	J0805339-005	98	94	100	106
MW-12C	J0805339-006	98	93	101	107
MW-11A	J0805339-007	97	96	101	105
MW-11B	J0805339-008	97	95	101	106
MW-11C	J0805339-009	99	94	101	107
MW-10A	J0805339-010	98	93	100	107
MW-10B	J0805339-011	100	93	101	107
MW-10C	J0805339-012	98	94	101	106
Trip Blank	J0805339-013	98	94	100	107
Method Blank	JWG0804213-4	97	94	100	108
Lab Control Sample	JWG0804213-3	96	94	99	106

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Extracted: 11/05/2008
Date Analyzed: 11/05/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804213

	Lab Control Sample JWG0804213-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Chloromethane	25.7	20.0	128	67-135
Vinyl Chloride	20.6	20.0	103	78-132
Bromomethane	18.7	20.0	93	79-130
Chloroethane	22.9	20.0	114	74-126
Trichlorofluoromethane	10.1	20.0	50 *	74-134
1,1-Dichloroethene	20.8	20.0	104	78-130
Acetone	104	100	104	67-133
Iodomethane (Methyl Iodide)	103	100	103	68-134
Carbon Disulfide	94.4	100	94	76-138
Methylene Chloride	21.2	20.0	106	72-124
trans-1,2-Dichloroethene	20.8	20.0	104	77-124
Acrylonitrile	109	100	109	77-127
1,1-Dichloroethane	20.7	20.0	103	80-128
Vinyl Acetate	98.4	100	98	61-148
cis-1,2-Dichloroethene	21.3	20.0	106	80-126
2-Butanone (MEK)	96.6	100	97	73-127
Bromochloromethane	21.7	20.0	109	79-129
Chloroform	21.0	20.0	105	83-124
1,1,1-Trichloroethane (TCA)	21.6	20.0	108	79-124
Carbon Tetrachloride	20.7	20.0	103	81-125
Benzene	20.6	20.0	103	79-119
1,2-Dichloroethane (EDC)	22.0	20.0	110	80-124
Trichloroethene (TCE)	21.0	20.0	105	76-124
1,2-Dichloropropane	20.8	20.0	104	79-123
Dibromomethane	20.5	20.0	102	83-123
Bromodichloromethane	20.7	20.0	104	81-123
cis-1,3-Dichloropropene	21.4	20.0	107	86-123
4-Methyl-2-pentanone (MIBK)	99.3	100	99	72-136
Toluene	21.2	20.0	106	86-117
trans-1,3-Dichloropropene	21.2	20.0	106	83-124
1,1,2-Trichloroethane	20.6	20.0	103	86-114
Tetrachloroethene (PCE)	21.4	20.0	107	80-121
2-Hexanone	98.7	100	99	71-138
Dibromochloromethane	21.8	20.0	109	82-121
1,2-Dibromoethane (EDB)	20.3	20.0	102	88-117
Chlorobenzene	20.9	20.0	104	86-113

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/05/2008
Sample Matrix:	Water	**Date Analyzed:**	11/05/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804213

	Lab Control Sample JWG0804213-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
1,1,1,2-Tetrachloroethane	21.9	20.0	109	85-117
Ethylbenzene	21.5	20.0	108	90-118
m,p-Xylenes	42.2	40.0	105	86-121
o-Xylene	21.3	20.0	107	89-119
Styrene	21.9	20.0	110	89-122
Bromoform	22.0	20.0	110	68-129
1,1,2,2-Tetrachloroethane	21.3	20.0	107	83-120
1,2,3-Trichloropropane	21.2	20.0	106	83-123
1,4-Dichlorobenzene	20.5	20.0	103	83-113
trans-1,4-Dichloro-2-butene	32.4	20.0	162 *	53-143
1,2-Dichlorobenzene	20.6	20.0	103	84-115
1,2-Dibromo-3-chloropropane (DBCP	19.7	20.0	98	62-123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
MW-13A	J0805339-001	118
MW-13B	J0805339-002	117
MW-13C	J0805339-003	119
MW-12A	J0805339-004	122
MW-12B	J0805339-005	119
MW-12C	J0805339-006	119
MW-11A	J0805339-007	114
MW-11B	J0805339-008	120
MW-11C	J0805339-009	118
MW-10A	J0805339-010	117
MW-10B	J0805339-011	133
MW-10C	J0805339-012	133
Method Blank	JWG0804235-3	126
Lab Control Sample	JWG0804235-1	119
Duplicate Lab Control Sample	JWG0804235-2	123

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805339
Date Extracted: 11/07/2008
Date Analyzed: 11/10/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804235

	Lab Control Sample JWG0804235-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804235-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	0.293	0.250	117	0.290	0.250	116	70-130	1	20
1,2-Dibromo-3-chloropropane (DBCP	0.259	0.250	104	0.254	0.250	102	70-130	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project Name:	JED SWDF	**Date Collected:**	11/04/2008
Project Number:	FQ1512	**Date Received:**	11/05/2008
Matrix:	WATER	**Date Extracted:**	11/11/2008
		Date Analyzed:	11/14/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-13B		**Units:**	ug/L
Lab Code:	J0805339-002	J0805339-002S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Antimony	EPA 3020	6020	2.0	50.0	50.0	U	52.6	49.5	105	99	6	75 - 125	
Arsenic	EPA 3020	6020	0.50	50.0	50.0	0.20	48.00	47.80	96	95	<1	75 - 125	
Barium	EPA 3020	6020	2.0	50.0	50.0	11.6	59.5	61.5	96	100	3	75 - 125	
Beryllium	EPA 3020	6020	1.0	50.0	50.0	U	48.9	49.5	98	99	1	75 - 125	
Cadmium	EPA 3020	6020	0.50	50.0	50.0	U	50.60	48.40	101	97	4	75 - 125	
Chromium	EPA 3020	6020	2.0	50.0	50.0	1.4	49.7	49.6	97	96	<1	75 - 125	
Cobalt	EPA 3020	6020	1.0	50.0	50.0	0.2	49.2	50.2	98	100	2	75 - 125	
Copper	EPA 3020	6020	2.0	50.0	50.0	0.7	49.1	49.3	97	97	<1	75 - 125	
Lead	EPA 3020	6020	1.0	50.0	50.0	1.0	49.5	48.9	97	96	1	75 - 125	
Nickel	EPA 3020	6020	2.0	50.0	50.0	U	48.0	47.8	96	96	<1	75 - 125	
Selenium	EPA 3020	6020	2.0	50.0	50.0	U	46.3	44.2	93	88	5	75 - 125	
Silver	EPA 3020	6020	0.50	50.0	50.0	U	55.90	55.50	112	111	1	75 - 125	
Thallium	EPA 3020	6020	1.0	50.0	50.0	U	45.6	44.8	91	90	2	75 - 125	
Vanadium	EPA 3020	6020	5.0	50.0	50.0	1.2	51.2	51.2	100	100	<1	75 - 125	
Zinc	EPA 3020	6020	10.0	100	100	U	97.4	94.6	97	95	3	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project Name:	JED SWDF	**Date Collected:**	11/04/2008
Project Number:	FQ1512	**Date Received:**	11/05/2008
Matrix:	WATER	**Date Extracted:**	11/11/2008
		Date Analyzed:	11/12/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-13A		**Units:**	ug/L
Lab Code:	J0805339-001	J0805339-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Iron	EPA 3010	6010B	50	2000	2000	13800	15500	15300	NC	NC	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/11/2008
		Date Analyzed:	11/14/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS2-1111	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	54.7	109	80 - 120	
Arsenic	EPA 3020A	6020	50.0	50.6	101	80 - 120	
Barium	EPA 3020A	6020	50.0	46.3	93	80 - 120	
Beryllium	EPA 3020A	6020	50.0	49.8	100	80 - 120	
Cadmium	EPA 3020A	6020	50.0	53.3	107	80 - 120	
Chromium	EPA 3020A	6020	50.0	49.8	100	80 - 120	
Cobalt	EPA 3020A	6020	50.0	51.1	102	80 - 120	
Copper	EPA 3020A	6020	50.0	51.5	103	80 - 120	
Iron	EPA 3010A	6010B	2000	1960	98	80 - 120	
Lead	EPA 3020A	6020	50.0	48.1	96	80 - 120	
Mercury	METHOD	7470A	5.00	4.60	92	80 - 120	
Nickel	EPA 3020A	6020	50.0	50.5	101	80 - 120	
Selenium	EPA 3020A	6020	50.0	52.7	105	80 - 120	
Silver	EPA 3020A	6020	50.0	58.4	117	80 - 120	
Thallium	EPA 3020A	6020	50.0	46.1	92	80 - 120	
Vanadium	EPA 3020A	6020	50.0	50.4	101	80 - 120	
Zinc	EPA 3020A	6020	100	98.9	99	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project Name:	JED SWDF	**Date Collected:**	11/04/2008
Project Number:	FQ1512	**Date Received:**	11/05/2008
Matrix:	WATER	**Date Extracted:**	11/11/2008
		Date Analyzed:	11/12/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-13A		**Units:**	mg/L
Lab Code:	J0805339-001	J0805339-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Sodium	EPA 3010	6010B	0.5	10.0	10.0	9.3	18.8	19.2	95	99	2	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805339
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/11/2008
		Date Analyzed:	11/12/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS1-1111	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	9.9	99	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08
Date Extracted : NA
Date Analyzed : 11/05,06/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-11A
Lab Code : J0805339-007DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	8.8	8.8	8.8	<1	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	200	200	200	<1	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08
Date Extracted : NA
Date Analyzed : 11/05/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-11A
Lab Code : J0805339-007MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.1	10.0	8.8	17.9	91	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08
Date Extracted : NA
Date Analyzed : 11/05/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-11B
Lab Code : J0805339-008DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	15	15	15	<1	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : 11/04/08
Date Received : 11/05/08
Date Extracted : NA
Date Analyzed : 11/05/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-11B
Lab Code : J0805339-008MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	100	15	109	94	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.03	101	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805339
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 11/05,06/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805339-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.19	104	90-110	
Chloride	mg/L (ppm)	300.0	5.00	5.25	105	90-110	
Chloride	mg/L (ppm)	300.0	100	97.6	98	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.11	102	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	299	100	85-115	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	303	101	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec
Project: JED SWDF

Service Request # J0805339

Cooler received on 11/5/08 and opened on 11/5/08 by TDK

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	1.1	1.3	
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR #: J0805339 Date: 11/5/08 Initials: TDK

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-001	3	3					1	1	1																					
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-040																														

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 2

SR # J0805339
CAS Contact

Project Name: JED SWDF
Project Number: FQ1512
Project Manager: Kirk Wills
Email Address: kwills@geosyntec.com
Company/Address: Geosyntec
14055 Riveredge Dr. Ste 300
Tampa, FL 33637
Phone #: 813-558-0990
FAX#: 813-558-9726
Sampler's Signature: Joe Terry
Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and C[redacted]

PRESERVATIVE: 1 0 3 2 0

1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH3	Metals	TDS, Cl, NO3	REMARKS/ ALTERNATE DESCRIPTION
MW-13A		11-4-08	0815	GW	9	X	X	X	X	X	
MW-13B			0847								
MW-13C			0805								
MW-12A			1020								
MW-12B			1055								
MW-12C			1010								
MW-11A			1230								
MW-11B			1325								
MW-11C			1250								
MW-10A			1450								

SPECIAL INSTRUCTIONS/COMMENTS
COC for contents of 2 coolers

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Todd Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Todd Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-4-08/1700	Date/Time: 11/5/08 9:40	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

SR # J0805339
CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and [redacted]

PRESERVATIVE: 1 0 3 2 0

NUMBER OF CONTAINERS / REMARKS/ALTERNATE DESCRIPTION

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	#	8260	8011	NH3	Metals	TDS, Cl, NO3	REMARKS/ALTERNATE DESCRIPTION
MW-10B		11-4-08	1510	GW	9	X	X	X	X	X	
MW-10C		11-4-08	1530	GW	9	X	X	X	X	X	
Trip Blank				W	3	X					

0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
93					
Signature: Joe Terry	Signature: Tom D. Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom D. Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: AS	Firm	Firm	Firm	Firm
Date/Time: 11-4-08/1700	Date/Time: 11/5/08 940	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

November 20, 2008

Service Request No: J0805378

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 6, 2008. For your reference, these analyses have been assigned our service request number **J0805378**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805378
Project:	JED SWDF	**Date Received:**	11/6/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Thirteen water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/6/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analytes in Second Source Verification (SSV) CAL1649: trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Continuing Calibration Verification Exceptions

The primary evaluation criterion was exceeded for the following analyte in the Continuing Calibration Verification (CCV) JWG0804228-2: Trichlorofluoromethane. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further action was taken.

Lab Control Sample Exceptions

The spike recovery of Trichlorofluoromethane for the Laboratory Control Sample (LCS) JWG0804226-3 was outside the lower control criterion. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG).

Approved by _____ **Date** 11/20/08

The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total and Dissolved Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA Methods. No problems were observed.

Approved by Craig R Nagy **Date** 11/20/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805378

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805378-001	MW-9A	11/5/08	08:15
J0805378-002	MW-9B	11/5/08	09:05
J0805378-003	MW-9C	11/5/08	08:45
J0805378-004	MW-8A	11/5/08	10:55
J0805378-005	MW-8B	11/5/08	11:25
J0805378-006	MW-8C	11/5/08	10:40
J0805378-007	MW-7A	11/5/08	13:05
J0805378-008	MW-7B	11/5/08	13:55
J0805378-009	MW-7C	11/5/08	13:15
J0805378-010	MW-5A	11/5/08	15:05
J0805378-011	MW-5B	11/5/08	15:40
J0805378-012	MW-5C	11/5/08	15:20
J0805378-013	DUP-1	11/5/08	00:00
J0805378-014	Trip Blank	11/5/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-9A
Lab Code: J0805378-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	**0.65**	I	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	**7.7**		1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	**2.3**		1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	**3.1**		1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-9A	**Units:**	ug/L
Lab Code:	J0805378-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	**1.6**		1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	**2.1**		1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/06/08	Acceptable
Dibromofluoromethane	102	82-116	11/06/08	Acceptable
Toluene-d8	107	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-9B
Lab Code: J0805378-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-9B	**Units:**	ug/L
Lab Code:	J0805378-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/06/08	Acceptable
Dibromofluoromethane	100	82-116	11/06/08	Acceptable
Toluene-d8	107	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-9C
Lab Code: J0805378-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-9C
Lab Code: J0805378-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	105	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-8A
Lab Code: J0805378-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-8A
Lab Code: J0805378-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/06/08	Acceptable
Dibromofluoromethane	102	82-116	11/06/08	Acceptable
Toluene-d8	106	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-8B
Lab Code: J0805378-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-8B
Lab Code: J0805378-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	105	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-8C
Lab Code: J0805378-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-8C	**Units:**	ug/L
Lab Code:	J0805378-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	106	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-7A
Lab Code: J0805378-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-7A
Lab Code: J0805378-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	106	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-7B
Lab Code: J0805378-008

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-7B
Lab Code: J0805378-008

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/06/08	Acceptable
Dibromofluoromethane	102	82-116	11/06/08	Acceptable
Toluene-d8	107	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-7C
Lab Code: J0805378-009

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-7C	**Units:**	ug/L
Lab Code:	J0805378-009	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	105	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-5A
Lab Code: J0805378-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	**0.76**	**I**	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-5A	**Units:**	ug/L
Lab Code:	J0805378-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	**0.53**	I	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	106	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-5B
Lab Code: J0805378-011

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-5B	**Units:**	ug/L
Lab Code:	J0805378-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/06/08	Acceptable
Dibromofluoromethane	100	82-116	11/06/08	Acceptable
Toluene-d8	107	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-5C
Lab Code: J0805378-012

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-5C
Lab Code: J0805378-012

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	105	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: DUP-1
Lab Code: J0805378-013

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	**0.71**	**I**	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	**7.8**		1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	**2.4**		1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	**2.9**		1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	DUP-1	**Units:**	ug/L
Lab Code:	J0805378-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	**1.6**		1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	**2.2**		1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	101	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/06/08	Acceptable
Dibromofluoromethane	102	82-116	11/06/08	Acceptable
Toluene-d8	106	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805378-014

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: 11/05/2008
Date Received: 11/06/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805378-014

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/06/08	Acceptable
Dibromofluoromethane	101	82-116	11/06/08	Acceptable
Toluene-d8	107	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804226-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/06/08	11/06/08	JWG0804226	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/06/08	11/06/08	JWG0804226	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/06/08	11/06/08	JWG0804226	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
2-Butanone (MEK)	ND	U	10	0.56	1	11/06/08	11/06/08	JWG0804226	
2-Hexanone	ND	U	25	0.36	1	11/06/08	11/06/08	JWG0804226	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/06/08	11/06/08	JWG0804226	
Acetone	ND	U	50	2.4	1	11/06/08	11/06/08	JWG0804226	
Acrylonitrile	ND	U	10	0.59	1	11/06/08	11/06/08	JWG0804226	
Benzene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
Bromochloromethane	ND	U	5.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Bromodichloromethane	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Bromoform	ND	U	2.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Bromomethane	ND	U	1.0	0.14	1	11/06/08	11/06/08	JWG0804226	
Carbon Disulfide	ND	U	10	0.84	1	11/06/08	11/06/08	JWG0804226	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/06/08	11/06/08	JWG0804226	
Chlorobenzene	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Chloroethane	ND	U	5.0	0.19	1	11/06/08	11/06/08	JWG0804226	
Chloroform	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	
Chloromethane	ND	U	1.0	0.17	1	11/06/08	11/06/08	JWG0804226	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Dibromochloromethane	ND	U	1.0	0.11	1	11/06/08	11/06/08	JWG0804226	
Dibromomethane	ND	U	5.0	0.12	1	11/06/08	11/06/08	JWG0804226	
Ethylbenzene	ND	U	1.0	0.10	1	11/06/08	11/06/08	JWG0804226	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804226-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/06/08	11/06/08	JWG0804226	
Methylene Chloride	ND	U	5.0	0.72	1	11/06/08	11/06/08	JWG0804226	
Styrene	ND	U	1.0	0.051	1	11/06/08	11/06/08	JWG0804226	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/06/08	11/06/08	JWG0804226	
Toluene	ND	U	1.0	0.52	1	11/06/08	11/06/08	JWG0804226	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/06/08	11/06/08	JWG0804226	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/06/08	11/06/08	JWG0804226	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/06/08	11/06/08	JWG0804226	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/06/08	11/06/08	JWG0804226	
Trichlorofluoromethane	ND	UJ	20	0.25	1	11/06/08	11/06/08	JWG0804226	J(3)
Vinyl Acetate	ND	U	10	0.60	1	11/06/08	11/06/08	JWG0804226	
Vinyl Chloride	ND	U	1.0	0.25	1	11/06/08	11/06/08	JWG0804226	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/06/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/06/08	Acceptable
Dibromofluoromethane	100	82-116	11/06/08	Acceptable
Toluene-d8	107	88-117	11/06/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-9A	**Units:**	ug/L
Lab Code:	J0805378-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	130	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-9B	**Units:**	ug/L
Lab Code:	J0805378-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	133	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-9C	**Units:**	ug/L
Lab Code:	J0805378-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	136	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-8A	**Units:**	ug/L
Lab Code:	J0805378-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	133	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-8B	**Units:**	ug/L
Lab Code:	J0805378-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	132	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-8C	**Units:**	ug/L
Lab Code:	J0805378-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	135	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-7A	**Units:**	ug/L
Lab Code:	J0805378-007	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	134	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-7B	**Units:**	ug/L
Lab Code:	J0805378-008	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	136	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-7C	**Units:**	ug/L
Lab Code:	J0805378-009	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	133	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-5A	**Units:**	ug/L
Lab Code:	J0805378-010	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	134	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-5B	**Units:**	ug/L
Lab Code:	J0805378-011	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	136	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-5C	**Units:**	ug/L
Lab Code:	J0805378-012	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	135	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	11/05/2008
Sample Matrix:	Water	**Date Received:**	11/06/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	DUP-1	**Units:**	ug/L
Lab Code:	J0805378-013	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	135	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804236-3	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/07/08	11/11/08	JWG0804236	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/07/08	11/11/08	JWG0804236	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	134	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	11/5/2008
Project Number:	FQ1512	**Date Received:**	11/6/2008
Matrix:	WATER		

Total Metals

Sample Name:	MW-9A	**Units:**	ug/L
Lab Code:	J0805378-001	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	0.5	i
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	2.4	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	2.7	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	2.8	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	1.0	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	632	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.3	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	1.2	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	0.9	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	1.7	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-9B
Lab Code: J0805378-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	0.40	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	29	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	1.6	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.2	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	1020	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.8	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.3	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	1.1	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	2.2	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-9C
Lab Code: J0805378-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	39	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	1.3	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	739	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	3.8	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	2.9	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-8A
Lab Code: J0805378-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	0.93	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	63	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	1.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	1.8	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	2610	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	4.1	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	2.8	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-8B
Lab Code: J0805378-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	0.32	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	53	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	3.8	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.8	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	980	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	5.7	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.5	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	0.8	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	9.0	
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-8C
Lab Code: J0805378-006

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	15	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	0.9	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	854	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	1.6	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-7A
Lab Code: J0805378-007

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	1.2	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	13	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	1.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	1.1	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	5220	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	1.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-7B
Lab Code: J0805378-008

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	0.36	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	34	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	1.0	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.2	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	1470	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.2	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-7C
Lab Code: J0805378-009

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	28	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	1.0	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	676	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.5	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	1.4	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-5A
Lab Code: J0805378-010

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	1.4	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	2.2	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	3.7	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	1.3	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	323	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	1.4	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.9	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	1.0	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	1.9	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-5B
Lab Code: J0805378-011

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	0.50	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	11	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	0.9	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	280	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	0.9	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	15	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: MW-5C
Lab Code: J0805378-012

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	22	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	0.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.9	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	918	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Total Metals

Sample Name: DUP-1
Lab Code: J0805378-013

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	2.0	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	2.8	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	2.6	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	0.9	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/12/2008	11/13/2008	643	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	0.4	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	1.0	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	1.6	i
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: N/A
Date Received: N/A

Total Metals

Sample Name: Method Blank
Lab Code: MB5-1112

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/12/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/12/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/12/2008	11/18/2008	U	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/12/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/12/2008	11/18/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/12/2008	11/13/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/13/2008	11/14/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/12/2008	11/18/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/12/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/12/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/12/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/12/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/12/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805378
Date Collected: 11/5/2008
Date Received: 11/6/2008

Dissolved Metals

Sample Name: MW-8B
Lab Code: J0805378-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/13/2008	11/17/2008	1.3	i
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/13/2008	11/17/2008	0.30	i
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/13/2008	11/17/2008	31	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/13/2008	11/17/2008	0.17	i
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/13/2008	11/17/2008	1.5	i
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	0.2	i
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	0.5	i
Iron	EPA 3005A	6010B	50	4.0	1.0	11/13/2008	11/13/2008	786	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	2.7	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	0.5	i
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/13/2008	11/17/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/13/2008	11/17/2008	0.14	i
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/13/2008	11/17/2008	2.8	i
Zinc	EPA 3005A	6020	10	4.0	1.0	11/13/2008	11/17/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER		

Dissolved Metals

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	MB3-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/13/2008	11/17/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/13/2008	11/17/2008	U	
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/13/2008	11/17/2008	U	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/13/2008	11/17/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/13/2008	11/17/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	U	
Iron	EPA 3005A	6010B	50.0	4.0	1.0	11/13/2008	11/13/2008	U	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/13/2008	11/17/2008	U	
Silver	EPA 3005A	6020	0.5	0.1	1.0	11/13/2008	11/17/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/13/2008	11/17/2008	U	
Zinc	EPA 3005A	6020	10.0	4.0	1.0	11/13/2008	11/17/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	11/05/2008
Project Number:	FQ1512	**Date Received:**	11/06/2008
Matrix:	WATER		

Total Metals
Sodium

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-9A	J0805378-001	0.50	0.02	1.0	11/12/2008	11/13/2008	11	
MW-9B	J0805378-002	0.50	0.02	1.0	11/12/2008	11/13/2008	10	
MW-9C	J0805378-003	0.50	0.02	1.0	11/12/2008	11/13/2008	6.4	
MW-8A	J0805378-004	0.50	0.02	1.0	11/12/2008	11/13/2008	30	
MW-8B	J0805378-005	0.50	0.02	1.0	11/12/2008	11/13/2008	6.5	
MW-8C	J0805378-006	0.50	0.02	1.0	11/12/2008	11/13/2008	5.9	
MW-7A	J0805378-007	0.50	0.02	1.0	11/12/2008	11/13/2008	15	
MW-7B	J0805378-008	0.50	0.02	1.0	11/12/2008	11/13/2008	9.3	
MW-7C	J0805378-009	0.50	0.02	1.0	11/12/2008	11/13/2008	6.1	
MW-5A	J0805378-010	0.50	0.02	1.0	11/12/2008	11/13/2008	18	
MW-5B	J0805378-011	0.50	0.02	1.0	11/12/2008	11/13/2008	7.1	
MW-5C	J0805378-012	0.50	0.02	1.0	11/13/2008	11/14/2008	8.6	
DUP-1	J0805378-013	0.50	0.02	1.0	11/12/2008	11/13/2008	11	
Method Blank	MB4-1112	0.50	0.02	1.0	11/12/2008	11/13/2008	U	
Method Blank	MB4-1113	0.50	0.02	1.0	11/13/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	11/05/2008
Project Number:	FQ1512	**Date Received:**	11/06/2008
Matrix:	WATER		

Dissolved Metals
Sodium

Prep Method:	EPA 3005A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-8B	J0805378-005	0.50	0.020	1.0	11/13/2008	11/13/2008	6.5	
Method Blank	MB2-1113	0.50	0.020	1.0	11/13/2008	11/13/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-9A
Lab Code : J0805378-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.25	0.1	5	11/07/08 09:50	16	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	22	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 14:32	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	160	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-9B
Lab Code : J0805378-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.13	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	17	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 15:17	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	67	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-9C
Lab Code : J0805378-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.20	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	9.2	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 15:32	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	68	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-8A
Lab Code : J0805378-004
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	3.0	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	64	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 15:47	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	190	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-8B
Lab Code : J0805378-005
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.15	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	9.6	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 16:02	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-8C
Lab Code : J0805378-006
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.11	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	7.5	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 17:02	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	44	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-7A
Lab Code : J0805378-007
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	3.7	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	27	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 17:17	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	96	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-7B
Lab Code : J0805378-008
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.14	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	21	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 17:32	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	68	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-7C
Lab Code : J0805378-009
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.096	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	7.6	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 17:47	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	45	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-5A
Lab Code : J0805378-010
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.25	0.1	5	11/07/08 09:50	14	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	43	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 18:02	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	210	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-5B
Lab Code : J0805378-011
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.20	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	14	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 18:17	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	51	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : MW-5C
Lab Code : J0805378-012
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	0.094	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	15	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 19:02	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	60	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08

Inorganic Parameters

Sample Name : DUP-1
Lab Code : J0805378-013
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.25	0.1	5	11/07/08 09:50	16	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	23	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 19:17	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	180	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805378-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/07/08 09:50	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/06/08 12:33	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/06/08 12:33	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
MW-9A	J0805378-001	98	94	102	107
MW-9B	J0805378-002	97	94	100	107
MW-9C	J0805378-003	96	92	101	105
MW-8A	J0805378-004	99	94	102	106
MW-8B	J0805378-005	97	94	101	105
MW-8C	J0805378-006	97	93	101	106
MW-7A	J0805378-007	98	92	101	106
MW-7B	J0805378-008	98	94	102	107
MW-7C	J0805378-009	97	94	101	105
MW-5A	J0805378-010	97	93	101	106
MW-5B	J0805378-011	98	93	100	107
MW-5C	J0805378-012	99	92	101	105
DUP-1	J0805378-013	101	93	102	106
Trip Blank	J0805378-014	100	94	101	107
Method Blank	JWG0804226-4	98	93	100	107
Lab Control Sample	JWG0804226-3	98	94	101	105

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Extracted: 11/06/2008
Date Analyzed: 11/06/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804226

Analyte Name	Lab Control Sample JWG0804226-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	21.4	20.0	107	85-117
1,1,1-Trichloroethane (TCA)	21.4	20.0	107	79-124
1,1,2,2-Tetrachloroethane	20.9	20.0	104	83-120
1,1,2-Trichloroethane	20.3	20.0	101	86-114
1,1-Dichloroethane	20.9	20.0	105	80-128
1,1-Dichloroethene	20.2	20.0	101	78-130
1,2,3-Trichloropropane	20.4	20.0	102	83-123
1,2-Dibromo-3-chloropropane (DBCP	19.0	20.0	95	62-123
1,2-Dibromoethane (EDB)	20.0	20.0	100	88-117
1,2-Dichlorobenzene	20.1	20.0	100	84-115
1,2-Dichloroethane (EDC)	21.5	20.0	108	80-124
1,2-Dichloropropane	20.3	20.0	102	79-123
1,4-Dichlorobenzene	20.5	20.0	103	83-113
2-Butanone (MEK)	99.0	100	99	73-127
2-Hexanone	97.8	100	98	71-138
4-Methyl-2-pentanone (MIBK)	98.8	100	99	72-136
Acetone	106	100	106	67-133
Acrylonitrile	100	100	100	77-127
Benzene	20.7	20.0	103	79-119
Bromochloromethane	21.2	20.0	106	79-129
Bromodichloromethane	20.4	20.0	102	81-123
Bromoform	20.2	20.0	101	68-129
Bromomethane	22.5	20.0	113	79-130
Carbon Disulfide	105	100	105	76-138
Carbon Tetrachloride	20.2	20.0	101	81-125
Chlorobenzene	20.6	20.0	103	86-113
Chloroethane	21.4	20.0	107	74-126
Chloroform	20.9	20.0	105	83-124
Chloromethane	22.6	20.0	113	67-135
cis-1,2-Dichloroethene	21.2	20.0	106	80-126
cis-1,3-Dichloropropene	20.6	20.0	103	86-123
Dibromochloromethane	20.3	20.0	102	82-121
Dibromomethane	20.5	20.0	102	83-123
Ethylbenzene	20.9	20.0	104	90-118
Iodomethane (Methyl Iodide)	103	100	103	68-134
Methylene Chloride	21.2	20.0	106	72-124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/06/2008
Sample Matrix:	Water	**Date Analyzed:**	11/06/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804226

	Lab Control Sample JWG0804226-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Styrene	20.5	20.0	102	89-122
Tetrachloroethene (PCE)	20.7	20.0	103	80-121
Toluene	20.6	20.0	103	86-117
trans-1,2-Dichloroethene	21.5	20.0	107	77-124
trans-1,3-Dichloropropene	20.8	20.0	104	83-124
trans-1,4-Dichloro-2-butene	17.2	20.0	86	53-143
Trichloroethene (TCE)	20.6	20.0	103	76-124
Trichlorofluoromethane	9.54	20.0	48 *	74-134
Vinyl Acetate	98.9	100	99	61-148
Vinyl Chloride	21.5	20.0	107	78-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
MW-9A	J0805378-001	130
MW-9B	J0805378-002	133
MW-9C	J0805378-003	136
MW-8A	J0805378-004	133
MW-8B	J0805378-005	132
MW-8C	J0805378-006	135
MW-7A	J0805378-007	134
MW-7B	J0805378-008	136
MW-7C	J0805378-009	133
MW-5A	J0805378-010	134
MW-5B	J0805378-011	136
MW-5C	J0805378-012	135
DUP-1	J0805378-013	135
Method Blank	JWG0804236-3	134
Lab Control Sample	JWG0804236-1	129
Duplicate Lab Control Sample	JWG0804236-2	135

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805378
Date Extracted: 11/07/2008
Date Analyzed: 11/11/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804236

	Lab Control Sample JWG0804236-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804236-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	0.288	0.250	115	0.294	0.250	118	70-130	2	20
1,2-Dibromo-3-chloropropane (DBCP	0.269	0.250	108	0.317	0.250	127	70-130	16	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	11/05/2008
Project Number:	FQ1512	**Date Received:**	11/06/2008
Matrix:	WATER	**Date Extracted:**	11/12/2008
		Date Analyzed:	11/13/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-9A		**Units:**	ug/L
Lab Code:	J0805378-001	J0805378-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Iron	EPA 3010	6010B	50	2000	2000	632	2540	2520	95	94	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	11/05/2008
Project Number:	FQ1512	**Date Received:**	11/06/2008
Matrix:	WATER	**Date Extracted:**	11/12/2008
		Date Analyzed:	11/12/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-7A		**Units:**	ug/L
Lab Code:	J0805378-007	J0805378-007S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Mercury	METHOD	7470A	0.50	5.00	5.00	U	4.48	4.51	90	90	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/12/2008
		Date Analyzed:	11/18/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS5-1112	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	51.1	102	80 - 120	
Arsenic	EPA 3020A	6020	50.0	47.6	95	80 - 120	
Barium	EPA 3020A	6020	50.0	51.2	102	80 - 120	
Beryllium	EPA 3020A	6020	50.0	46.3	93	80 - 120	
Cadmium	EPA 3020A	6020	50.0	47.9	96	80 - 120	
Chromium	EPA 3020A	6020	50.0	49.3	99	80 - 120	
Cobalt	EPA 3020A	6020	50.0	47.6	95	80 - 120	
Copper	EPA 3020A	6020	50.0	46.1	92	80 - 120	
Iron	EPA 3010A	6010B	2000	1950	98	80 - 120	
Iron	EPA 3010A	6010B	2000	1960	98	80 - 120	
Lead	EPA 3020A	6020	50.0	49.6	99	80 - 120	
Mercury	METHOD	7470A	5.00	4.84	97	80 - 120	
Nickel	EPA 3020A	6020	50.0	47.4	95	80 - 120	
Selenium	EPA 3020A	6020	50.0	45.2	90	80 - 120	
Silver	EPA 3020A	6020	50.0	52.7	105	80 - 120	
Thallium	EPA 3020A	6020	50.0	49.0	98	80 - 120	
Vanadium	EPA 3020A	6020	50.0	49.6	99	80 - 120	
Zinc	EPA 3020A	6020	100	87.6	88	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/17/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS3-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3005A	6020	50.0	53.3	107	80 - 120	
Arsenic	EPA 3005A	6020	50.0	48.5	97	80 - 120	
Barium	EPA 3005A	6020	50.0	49.4	99	80 - 120	
Beryllium	EPA 3005A	6020	50.0	50.6	101	80 - 120	
Cadmium	EPA 3005A	6020	50.0	48.8	98	80 - 120	
Chromium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Cobalt	EPA 3005A	6020	50.0	49.8	100	80 - 120	
Copper	EPA 3005A	6020	50.0	49.5	99	80 - 120	
Iron	EPA 3005A	6010B	2000	2010	100	80 - 120	
Lead	EPA 3005A	6020	50.0	50.4	101	80 - 120	
Mercury	METHOD	7470A	5.00	4.84	97	80 - 120	
Nickel	EPA 3005A	6020	50.0	50.3	101	80 - 120	
Selenium	EPA 3005A	6020	50.0	48.9	98	80 - 120	
Silver	EPA 3005A	6020	50.0	52.9	106	80 - 120	
Thallium	EPA 3005A	6020	50.0	49.1	98	80 - 120	
Vanadium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Zinc	EPA 3005A	6020	100	101.0	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	11/05/2008
Project Number:	FQ1512	**Date Received:**	11/06/2008
Matrix:	WATER	**Date Extracted:**	11/12/2008
		Date Analyzed:	11/13/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-9A		**Units:**	mg/L
Lab Code:	J0805378-001	J0805378-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Sodium	EPA 3010	6010B	0.5	10.0	10.0	10.8	20.5	20.6	97	98	<1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/14/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS4-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	10.1	101	80 - 120	
Sodium	EPA 3010A	6010B	10.0	10.0	100	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805378
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/13/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS2-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3005A	6010B	10.0	10.1	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/06/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-9A
Lab Code : J0805378-001DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	22	23	22.5	4	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/06/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-9A
Lab Code : J0805378-001MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	100	22	119	97	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.09	102	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/11/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-9B
Lab Code : J0805378-002DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	67	61	64	9	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/07/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-8A
Lab Code : J0805378-004DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	3.0	3.0	3	<1	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/07/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-8A
Lab Code : J0805378-004MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	5.00	3.0	8.12	102	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/06/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-5B
Lab Code : J0805378-011DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	14	14	14	<1	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/06/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-5B
Lab Code : J0805378-011MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	100	14	110	96	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.16	103	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805378
Date Collected : 11/05/08
Date Received : 11/06/08
Date Extracted : NA
Date Analyzed : 11/11/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-5C
Lab Code : J0805378-012DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	60	63	61.5	5	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805378
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/06-11/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805378-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.07	101	90-110	
Chloride	mg/L (ppm)	300.0	5.00	5.20	104	90-110	
Chloride	mg/L (ppm)	300.0	100	92.8	93	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.09	102	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	303	101	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec Service Request # J0805378

Project: JED SWDF

Cooler received on 11/6/08 and opened on 11/6/08 by TDK

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	3.1	0.4	
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR # : J 0805378 Date: 11/6/08 Initials: DK

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-040																														

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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PAGE 1 OF 2

SR # J0805378
CAS Contact

Project Name: JED SWDF
Project Number: FQ1512
Project Manager: Kirk Wills
Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge D. Ste 300, Tampa, FL 33637
Phone #: 813-558-0990
FAX#: 813-558-9726
Sampler's Signature: Joe Terry
Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number [redacted]

PRESERVATIVE: 1 0 3 2 0 2

Preservative Key: 0. NONE; 1. HCL; 2. HNO_3; 3. H_2SO_4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. $NaHSO_4$; 8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH3	Metals	TDS, Cl, NO3	Dissolved Metals	REMARKS/ ALTERNATE DESCRIPTION
MW-9A		11-5-08	0815	GW	9	X	X	X	X	X		
MW-9B			0905		9							
MW-9C			0845		9							
MW-8A			1055		9							
MW-8B			1125		10						X	
MW-8C			1040		9							
MW-7A			1305		9							
MW-7B			1355		9							
MW-7C			1315		9							
MW-5A			1505		9							

SPECIAL INSTRUCTIONS/COMMENTS
COC for contents of 2 coolers

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Tom D. Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom D. Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-5-08/1630	Date/Time: 11/6/08 950	Date/Time	Date/Time	Date/Time	Date/Time

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Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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SR # J0805378

[redacted]

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste. 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number a[redacted]

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH_3	Metals	TDS, Cl, NO_3											REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1	0	3	2	0											
MW-5B		11-5-08	1540	GW	9	X	X	X	X	X											
MW-5C		11-5-08	1520	GW	9	X	X	X	X	X											
DUP-1		11-5-08		GW	9	X	X	X	X	X											
Trip Blank				W	3	X															

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Tom D. Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom D. Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-5-08/1630	Date/Time: 11/6/08 950	Date/Time	Date/Time	Date/Time	Date/Time

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Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
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November 21, 2008

Service Request No: J0805417

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 7, 2008. For your reference, these analyses have been assigned our service request number **J0805417**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805417
Project:	JED SWDF	**Date Received:**	11/7/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Nine water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/7/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analyte in Second Source Verification (SSV) CAL1659: trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Matrix Spike Recovery Exceptions

The matrix spike recoveries of Bromomethane and Chloroethane for sample MW-2A were outside the control criterion. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

Lab Control Sample Exceptions

The spike recovery of 1,2-Dibromo-3-chloropropane (DBCP) for Laboratory Control Sample (LCS) JWG0804303-3 was outside the upper control criterion. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Approved by _____ **Date** 11/21/08

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA Methods. No problems were observed.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Approved by Craig R Hy **Date** 11/21/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805417

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805417-001	MW-2A	11/6/08	15:35
J0805417-002	MW-2B	11/6/08	16:15
J0805417-003	MW-2C	11/6/08	15:45
J0805417-004	MW-3A	11/6/08	11:00
J0805417-005	MW-3B	11/6/08	11:20
J0805417-006	MW-3C	11/6/08	10:40
J0805417-007	MW-4A	11/6/08	08:00
J0805417-008	MW-4B	11/6/08	08:15
J0805417-009	MW-4C	11/6/08	09:00
J0805417-010	Trip Blank	11/6/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-2A
Lab Code: J0805417-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	**5.7**	I	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-2A
Lab Code: J0805417-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	102	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	102	75-120	11/12/08	Acceptable
Dibromofluoromethane	102	82-116	11/12/08	Acceptable
Toluene-d8	101	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-2B
Lab Code: J0805417-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-2B
Lab Code: J0805417-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	102	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/12/08	Acceptable
Dibromofluoromethane	102	82-116	11/12/08	Acceptable
Toluene-d8	99	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-2C
Lab Code: J0805417-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-2C	**Units:**	ug/L
Lab Code:	J0805417-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/12/08	Acceptable
Dibromofluoromethane	98	82-116	11/12/08	Acceptable
Toluene-d8	97	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-3A
Lab Code: J0805417-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	**3.3**	I	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	**0.88**	I	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-3A
Lab Code: J0805417-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	**0.38**	I	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	**0.44**	I	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	**0.24**	I	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	102	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	101	75-120	11/12/08	Acceptable
Dibromofluoromethane	102	82-116	11/12/08	Acceptable
Toluene-d8	100	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-3B
Lab Code: J0805417-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-3B
Lab Code: J0805417-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/12/08	Acceptable
Dibromofluoromethane	101	82-116	11/12/08	Acceptable
Toluene-d8	100	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-3C	**Units:**	ug/L
Lab Code:	J0805417-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	**3.0**	I	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-3C
Lab Code: J0805417-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	104	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/12/08	Acceptable
Dibromofluoromethane	102	82-116	11/12/08	Acceptable
Toluene-d8	98	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-4A
Lab Code: J0805417-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	**2.7**	I	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-4A
Lab Code: J0805417-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	**0.19**	I	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	101	75-120	11/12/08	Acceptable
Dibromofluoromethane	99	82-116	11/12/08	Acceptable
Toluene-d8	100	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-4B	**Units:**	ug/L
Lab Code:	J0805417-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	**2.7**	I	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-4B	**Units:**	ug/L
Lab Code:	J0805417-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	99	75-120	11/12/08	Acceptable
Dibromofluoromethane	99	82-116	11/12/08	Acceptable
Toluene-d8	101	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-4C
Lab Code: J0805417-009

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	**3.3**	I	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-4C
Lab Code: J0805417-009

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	101	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/12/08	Acceptable
Dibromofluoromethane	101	82-116	11/12/08	Acceptable
Toluene-d8	99	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805417-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: 11/06/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805417-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	103	75-120	11/12/08	Acceptable
Dibromofluoromethane	99	82-116	11/12/08	Acceptable
Toluene-d8	97	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804303-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804303	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroethane	ND	U	5.0	0.19	1	11/12/08	11/12/08	JWG0804303	
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804303	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804303	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804303	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804303	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804303	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804303	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804303	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804303	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804303	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804303	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804303	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804303	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804303	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804303	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804303	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804303	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804303	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804303	
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804303	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804303-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804303	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804303	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804303	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804303	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804303	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804303	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804303	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804303	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804303	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804303	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804303	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	99	75-120	11/12/08	Acceptable
Dibromofluoromethane	99	82-116	11/12/08	Acceptable
Toluene-d8	99	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-2A	**Units:**	ug/L
Lab Code:	J0805417-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	129	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-2B	**Units:**	ug/L
Lab Code:	J0805417-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	128	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-2C	**Units:**	ug/L
Lab Code:	J0805417-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	128	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-3A	**Units:**	ug/L
Lab Code:	J0805417-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	132	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-3B	**Units:**	ug/L
Lab Code:	J0805417-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	132	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-3C	**Units:**	ug/L
Lab Code:	J0805417-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	127	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-4A	**Units:**	ug/L
Lab Code:	J0805417-007	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	120	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-4B	**Units:**	ug/L
Lab Code:	J0805417-008	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	123	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	11/06/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-4C	**Units:**	ug/L
Lab Code:	J0805417-009	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	119	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804237-3	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	135	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-2A
Lab Code: J0805417-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	0.93	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	14	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	0.2	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	0.12	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	1.9	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	1.9	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	0.5	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	6460	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	1.1	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	0.9	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	1.5	i
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-2B
Lab Code: J0805417-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	1.4	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	9.9	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	850	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-2C
Lab Code: J0805417-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	12	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	534	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-3A
Lab Code: J0805417-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	1.2	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	76	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	1.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	0.8	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	0.6	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	2510	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	3.1	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	2.6	i
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	126	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project Name:	JED SWDF	**Date Collected:**	11/6/2008
Project Number:	FQ1512	**Date Received:**	11/7/2008
Matrix:	WATER		

Total Metals

Sample Name:	MW-3B	**Units:**	ug/L
Lab Code:	J0805417-005	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	20	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	0.4	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	1320	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-3C
Lab Code: J0805417-006

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	0.33	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	416	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	2.8	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	9.0	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	727	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	2.4	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	6.9	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	1.7	i
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	3910	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-4A
Lab Code: J0805417-007

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	0.87	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	27	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	2.1	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	0.8	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	0.8	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	3390	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	1.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	1.7	i
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	11	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-4B
Lab Code: J0805417-008

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	1.1	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	87	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	1.6	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	1.2	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	1.2	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	10400	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	1.2	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	2.7	i
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	5	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: 11/6/2008
Date Received: 11/7/2008

Total Metals

Sample Name: MW-4C
Lab Code: J0805417-009

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	0.23	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	20	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	2.9	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	0.3	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/13/2008	11/14/2008	825	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	0.4	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	0.5	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	2.7	i
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	4	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805417
Date Collected: N/A
Date Received: N/A

Total Metals

Sample Name: Method Blank
Lab Code: MB3-1117

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/17/2008	11/18/2008	0.5	i
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/17/2008	11/18/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/17/2008	11/18/2008	U	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/17/2008	11/18/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/17/2008	11/18/2008	1.0	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	0.4	i
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/13/2008	11/14/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/17/2008	11/18/2008	0.7	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/17/2008	11/18/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/17/2008	11/18/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/17/2008	11/18/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/17/2008	11/18/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/17/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project Name:	JED SWDF	**Date Collected:**	11/06/2008
Project Number:	FQ1512	**Date Received:**	11/07/2008
Matrix:	WATER		

Total Metals
Sodium

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-2A	J0805417-001	0.50	0.02	1.0	11/13/2008	11/14/2008	13	
MW-2B	J0805417-002	0.50	0.02	1.0	11/13/2008	11/14/2008	6.1	
MW-2C	J0805417-003	0.50	0.02	1.0	11/13/2008	11/14/2008	4.7	
MW-3A	J0805417-004	0.50	0.02	1.0	11/13/2008	11/14/2008	46	
MW-3B	J0805417-005	0.50	0.02	1.0	11/13/2008	11/14/2008	8.3	
MW-3C	J0805417-006	0.50	0.02	1.0	11/13/2008	11/14/2008	5.0	
MW-4A	J0805417-007	0.50	0.02	1.0	11/13/2008	11/14/2008	27	
MW-4B	J0805417-008	0.50	0.02	1.0	11/13/2008	11/14/2008	73	
MW-4C	J0805417-009	0.50	0.02	1.0	11/13/2008	11/14/2008	7.8	
Method Blank	MB4-1113	0.50	0.02	1.0	11/13/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-2A
Lab Code : J0805417-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	0.61	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	30	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 16:25	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	85	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-2B
Lab Code : J0805417-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	0.14	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	11	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 17:10	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	46	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-2C
Lab Code : J0805417-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	0.10	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	7.0	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 17:25	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	34	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-3A
Lab Code : J0805417-004
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	6.1	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	54	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 17:40	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	300	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-3B
Lab Code : J0805417-005
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	0.17	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	23	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 17:55	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	61	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-3C
Lab Code : J0805417-006
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	0.094	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	7.6	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 18:55	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	46	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-4A
Lab Code : J0805417-007
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	4.3	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	46	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 19:10	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	200	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-4B
Lab Code : J0805417-008
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	6.9	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	100	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 19:25	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	660	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : MW-4C
Lab Code : J0805417-009
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	0.15	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	9.4	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 19:40	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	90	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805417-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/10/08 10:09	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/07/08 15:40	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 15:40	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 15:25	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
MW-2A	J0805417-001	102	102	102	101
MW-2B	J0805417-002	102	100	102	99
MW-2C	J0805417-003	97	100	98	97
MW-3A	J0805417-004	102	101	102	100
MW-3B	J0805417-005	99	100	101	100
MW-3C	J0805417-006	104	100	102	98
MW-4A	J0805417-007	98	101	99	100
MW-4B	J0805417-008	100	99	99	101
MW-4C	J0805417-009	101	100	101	99
Trip Blank	J0805417-010	98	103	99	97
Method Blank	JWG0804303-4	100	99	99	99
MW-2AMS	JWG0804303-1	100	99	97	98
MW-2ADMS	JWG0804303-2	99	97	99	99
Lab Control Sample	JWG0804303-3	97	98	94	100

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Extracted: 11/12/2008
Date Analyzed: 11/12/2008

Matrix Spike/Duplicate Matrix Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-2A
Lab Code: J0805417-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low
Extraction Lot: JWG0804303

Analyte Name	Sample Result	MW-2AMS JWG0804303-1 Matrix Spike Result	Expected	%Rec	MW-2ADMS JWG0804303-2 Duplicate Matrix Spike Result	Expected	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	ND	21.6	20.0	108	21.3	20.0	107	73-139	1	30
Vinyl Chloride	ND	22.8	20.0	114	22.6	20.0	113	78-141	1	30
Bromomethane	ND	15.2	20.0	76 *	15.8	20.0	79	78-129	4	30
Chloroethane	ND	26.4	20.0	132 *	28.5	20.0	143 *	76-129	8	30
Trichlorofluoromethane	ND	24.7	20.0	123	24.1	20.0	120	81-133	3	30
1,1-Dichloroethene	ND	23.1	20.0	116	23.0	20.0	115	79-133	1	30
Acetone	5.7	109	100	104	110	100	104	56-139	1	30
Iodomethane (Methyl Iodide)	ND	108	100	108	126	100	126	74-134	15	30
Carbon Disulfide	ND	121	100	121	120	100	120	71-146	1	30
Methylene Chloride	ND	21.1	20.0	105	21.2	20.0	106	75-123	1	30
trans-1,2-Dichloroethene	ND	22.4	20.0	112	22.2	20.0	111	76-125	1	30
Acrylonitrile	ND	99.9	100	100	103	100	103	68-131	3	30
1,1-Dichloroethane	ND	22.0	20.0	110	22.1	20.0	110	78-125	0	30
Vinyl Acetate	ND	101	100	101	101	100	101	43-163	0	30
cis-1,2-Dichloroethene	ND	21.2	20.0	106	21.3	20.0	107	75-127	1	30
2-Butanone (MEK)	ND	100	100	100	103	100	103	63-134	3	30
Bromochloromethane	ND	22.5	20.0	112	22.4	20.0	112	80-124	0	30
Chloroform	ND	22.3	20.0	112	22.1	20.0	110	81-124	1	30
1,1,1-Trichloroethane (TCA)	ND	22.6	20.0	113	22.7	20.0	113	76-130	0	30
Carbon Tetrachloride	ND	22.5	20.0	113	22.3	20.0	112	76-131	1	30
Benzene	ND	21.6	20.0	108	21.5	20.0	108	78-123	1	30
1,2-Dichloroethane (EDC)	ND	21.3	20.0	106	21.2	20.0	106	74-126	0	30
Trichloroethene (TCE)	ND	22.0	20.0	110	21.4	20.0	107	77-128	3	30
1,2-Dichloropropane	ND	21.8	20.0	109	22.0	20.0	110	77-122	1	30
Dibromomethane	ND	21.1	20.0	106	21.2	20.0	106	78-124	0	30
Bromodichloromethane	ND	21.2	20.0	106	20.7	20.0	104	79-125	2	30
cis-1,3-Dichloropropene	ND	20.6	20.0	103	20.8	20.0	104	77-117	1	30
4-Methyl-2-pentanone (MIBK)	ND	100	100	100	104	100	104	65-138	4	30
Toluene	ND	21.5	20.0	107	21.9	20.0	109	86-119	2	30
trans-1,3-Dichloropropene	ND	20.1	20.0	101	20.4	20.0	102	75-120	2	30
1,1,2-Trichloroethane	ND	20.4	20.0	102	20.5	20.0	103	77-124	1	30
Tetrachloroethene (PCE)	ND	21.1	20.0	105	21.0	20.0	105	79-123	1	30
2-Hexanone	ND	102	100	102	105	100	105	63-142	3	30
Dibromochloromethane	ND	19.9	20.0	100	20.5	20.0	102	78-124	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Extracted: 11/12/2008
Date Analyzed: 11/12/2008

Matrix Spike/Duplicate Matrix Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-2A
Lab Code: J0805417-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low
Extraction Lot: JWG0804303

Analyte Name	Sample Result	MW-2AMS JWG0804303-1 Matrix Spike			MW-2ADMS JWG0804303-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,2-Dibromoethane (EDB)	ND	20.4	20.0	102	20.4	20.0	102	81-119	0	30
Chlorobenzene	ND	20.4	20.0	102	20.6	20.0	103	81-120	1	30
1,1,1,2-Tetrachloroethane	ND	20.6	20.0	103	20.7	20.0	104	82-118	1	30
Ethylbenzene	ND	21.6	20.0	108	21.7	20.0	109	87-122	1	30
m,p-Xylenes	ND	42.5	40.0	106	42.6	40.0	107	82-120	0	30
o-Xylene	ND	21.0	20.0	105	21.1	20.0	105	85-119	0	30
Styrene	ND	20.6	20.0	103	21.1	20.0	105	84-126	2	30
Bromoform	ND	18.6	20.0	93	19.7	20.0	99	70-129	6	30
1,1,2,2-Tetrachloroethane	ND	19.2	20.0	96	20.8	20.0	104	72-127	8	30
1,2,3-Trichloropropane	ND	19.8	20.0	99	20.0	20.0	100	76-123	1	30
1,4-Dichlorobenzene	ND	20.1	20.0	101	20.7	20.0	103	75-115	3	30
trans-1,4-Dichloro-2-butene	ND	18.1	20.0	90	16.6	20.0	83	22-135	8	30
1,2-Dichlorobenzene	ND	20.1	20.0	101	20.5	20.0	103	77-116	2	30
1,2-Dibromo-3-chloropropane (DBCP	ND	17.6	20.0	88	19.5	20.0	98	54-120	11	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/12/2008
Sample Matrix:	Water	**Date Analyzed:**	11/12/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804303

	Lab Control Sample JWG0804303-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Chloromethane	18.5	20.0	92	67-135
Vinyl Chloride	20.7	20.0	103	78-132
Bromomethane	24.0	20.0	120	79-130
Chloroethane	20.4	20.0	102	74-126
Trichlorofluoromethane	21.1	20.0	106	74-134
1,1-Dichloroethene	21.3	20.0	107	78-130
Acetone	106	100	106	67-133
Iodomethane (Methyl Iodide)	108	100	108	68-134
Carbon Disulfide	105	100	105	76-138
Methylene Chloride	20.5	20.0	103	72-124
trans-1,2-Dichloroethene	21.2	20.0	106	77-124
Acrylonitrile	105	100	105	77-127
1,1-Dichloroethane	20.2	20.0	101	80-128
Vinyl Acetate	107	100	107	61-148
cis-1,2-Dichloroethene	19.9	20.0	100	80-126
2-Butanone (MEK)	107	100	107	73-127
Bromochloromethane	21.0	20.0	105	79-129
Chloroform	20.1	20.0	101	83-124
1,1,1-Trichloroethane (TCA)	21.1	20.0	106	79-124
Carbon Tetrachloride	21.2	20.0	106	81-125
Benzene	20.3	20.0	101	79-119
1,2-Dichloroethane (EDC)	20.3	20.0	101	80-124
Trichloroethene (TCE)	20.8	20.0	104	76-124
1,2-Dichloropropane	20.1	20.0	100	79-123
Dibromomethane	20.4	20.0	102	83-123
Bromodichloromethane	19.5	20.0	98	81-123
cis-1,3-Dichloropropene	21.0	20.0	105	86-123
4-Methyl-2-pentanone (MIBK)	108	100	108	72-136
Toluene	21.5	20.0	108	86-117
trans-1,3-Dichloropropene	21.2	20.0	106	83-124
1,1,2-Trichloroethane	21.0	20.0	105	86-114
Tetrachloroethene (PCE)	20.1	20.0	100	80-121
2-Hexanone	115	100	115	71-138
Dibromochloromethane	19.5	20.0	98	82-121
1,2-Dibromoethane (EDB)	20.8	20.0	104	88-117
Chlorobenzene	20.1	20.0	101	86-113

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Extracted: 11/12/2008
Date Analyzed: 11/12/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804303

Analyte Name	Lab Control Sample JWG0804303-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.8	20.0	104	85-117
Ethylbenzene	20.9	20.0	104	90-118
m,p-Xylenes	42.0	40.0	105	86-121
o-Xylene	20.9	20.0	105	89-119
Styrene	21.0	20.0	105	89-122
Bromoform	20.5	20.0	103	68-129
1,1,2,2-Tetrachloroethane	22.2	20.0	111	83-120
1,2,3-Trichloropropane	21.4	20.0	107	83-123
1,4-Dichlorobenzene	21.3	20.0	107	83-113
trans-1,4-Dichloro-2-butene	20.2	20.0	101	53-143
1,2-Dichlorobenzene	22.1	20.0	110	84-115
1,2-Dibromo-3-chloropropane (DBCP	26.6	20.0	133 *	62-123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
MW-2A	J0805417-001	129
MW-2B	J0805417-002	128
MW-2C	J0805417-003	128
MW-3A	J0805417-004	132
MW-3B	J0805417-005	132
MW-3C	J0805417-006	127
MW-4A	J0805417-007	120
MW-4B	J0805417-008	123
MW-4C	J0805417-009	119
Method Blank	JWG0804237-3	135
Lab Control Sample	JWG0804237-1	132
Duplicate Lab Control Sample	JWG0804237-2	126

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805417
Date Extracted: 11/08/2008
Date Analyzed: 11/11/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804237

	Lab Control Sample JWG0804237-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804237-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	0.266	0.250	106	0.262	0.250	105	70-130	2	20
1,2-Dibromo-3-chloropropane (DBCP	0.265	0.250	106	0.261	0.250	104	70-130	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project Name:	JED SWDF	**Date Collected:**	11/06/2008
Project Number:	FQ1512	**Date Received:**	11/07/2008
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/14/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-2A		**Units:**	ug/L
Lab Code:	J0805417-001	J0805417-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Iron	EPA 3010	6010B	50	2000	2000	6460	8290	8200	92	87	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project Name:	JED SWDF	**Date Collected:**	11/06/2008
Project Number:	FQ1512	**Date Received:**	11/07/2008
Matrix:	WATER	**Date Extracted:**	11/14/2008
		Date Analyzed:	11/14/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-2B		**Units:**	ug/L
Lab Code:	J0805417-002	J0805417-002S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Mercury	METHOD	7470A	0.50	5.00	5.00	U	4.90	4.99	98	100	2	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/17/2008
		Date Analyzed:	11/18/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS3-1117	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	47.8	96	80 - 120	
Arsenic	EPA 3020A	6020	50.0	46.6	93	80 - 120	
Barium	EPA 3020A	6020	50.0	46.0	92	80 - 120	
Beryllium	EPA 3020A	6020	50.0	52.4	105	80 - 120	
Cadmium	EPA 3020A	6020	50.0	46.8	94	80 - 120	
Chromium	EPA 3020A	6020	50.0	50.3	101	80 - 120	
Cobalt	EPA 3020A	6020	50.0	48.0	96	80 - 120	
Copper	EPA 3020A	6020	50.0	48.3	97	80 - 120	
Iron	EPA 3010A	6010B	2000	1960	98	80 - 120	
Lead	EPA 3020A	6020	50.0	47.3	95	80 - 120	
Mercury	METHOD	7470A	5.00	4.85	97	80 - 120	
Nickel	EPA 3020A	6020	50.0	49.0	98	80 - 120	
Selenium	EPA 3020A	6020	50.0	44.9	90	80 - 120	
Silver	EPA 3020A	6020	50.0	50.6	101	80 - 120	
Thallium	EPA 3020A	6020	50.0	47.1	94	80 - 120	
Vanadium	EPA 3020A	6020	50.0	45.2	90	80 - 120	
Zinc	EPA 3020A	6020	100	91.2	91	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project Name:	JED SWDF	**Date Collected:**	11/06/2008
Project Number:	FQ1512	**Date Received:**	11/07/2008
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/14/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-2A		**Units:**	mg/L
Lab Code:	J0805417-001	J0805417-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Sodium	EPA 3010	6010B	0.5	10.0	10.0	12.7	22.5	22.2	98	95	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805417
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/14/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS4-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	10.1	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08
Date Extracted : NA
Date Analyzed : 11/07/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-2A
Lab Code : J0805417-001DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	30	30	30	<1	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805417
Date Collected : 11/06/08
Date Received : 11/07/08
Date Extracted : NA
Date Analyzed : 11/07/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-2A
Lab Code : J0805417-001MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	100	30	127	97	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.19	104	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805417
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/07-11/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805417-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.24	105	90-110	
Chloride	mg/L (ppm)	300.0	5.00	5.15	103	90-110	
Chloride	mg/L (ppm)	300.0	100	95.3	95	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.00	100	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	287	96	85-115	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	303	101	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec | Service Request # J08J417

Project: JED SWDF

Cooler received on 11-7-08 | and opened on 11-7-08 by [illegible]

COURIER: CAS UPS FEDEX DHL CLIENT | Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C) 3.7			
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

*Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR # : J 0805417 Date: 11-7-08 Initials: DMC

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Container	40ml	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
-001	3	3					1	1	1																					
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-040																														

Columbia Analytical Services INC.
An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR # J0805417
CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Numb[redacted]

PRESERVATIVE: 1 0 3 2 0

NUMBER OF CONTAINERS: 8260, 8011, NH3, Metals, TDS, Cl, NO3

1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	8260	8011	NH3	Metals	TDS	Cl, NO3	REMARKS/ ALTERNATE DESCRIPTION
MW-2A		11-6-08	1535	GW	9	X	X	X	X	X	
MW-2B			1615								
MW-2C			1545								
MW-3A			1100								
MW-3B			1120								
MW-3C			1040								
MW-4A			0800								
MW-4B			0815								
MW-4C			0900								
Trip Blank				W	3						

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP ____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: [illegible]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11/7/08 - 1355	Date/Time: 11-7-08 1355	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

November 24, 2008

Service Request No: J0805418

Mr. Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Mr. Wills:

Enclosed are the results of the sample(s) submitted to our laboratory on November 7, 2008. For your reference, these analyses have been assigned our service request number **J0805418**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805418
Project:	JED SWDF	**Date Received:**	11/7/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Two water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/7/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analyte in Second Source Verification (SSV) CAL1655: trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Lab Control Sample Exceptions

The spike recoveries of 1,2-Dibromo-3-chloropropane (DBCP) for Laboratory Control Sample (LCS) JWG0804295-1 and Chloroethane for Duplicate Laboratory Control Sample (DLCS) JWG0804295-2 were outside the upper control criterion. The analytes in question were not detected in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Approved by Craig R Myers **Date** 11/24/08

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. The following observations were made regarding this delivery group.

Sample Notes and Discussion

The fecal coliform result for sample SW-3 is based on colony counts outside the optimal colony range of 20-60 CFU. The data has been qualified. This is an informational flag and it does not impact the quality of the data.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Approved by Craig R Nyman **Date** 11/24/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805418

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805418-001	SW-3	11/7/08	10:30
J0805418-002	SW-4	11/7/08	10:00
J0805418-003	Trip Blank	11/7/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: 11/07/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: SW-3
Lab Code: J0805418-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804295	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804295	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804295	
Chloroethane	ND	UJ	5.0	0.19	1	11/12/08	11/12/08	JWG0804295	J(3)
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804295	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804295	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804295	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804295	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804295	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804295	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804295	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804295	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804295	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804295	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804295	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804295	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804295	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804295	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804295	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804295	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804295	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804295	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804295	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804295	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804295	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804295	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: 11/07/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: SW-3
Lab Code: J0805418-001

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804295	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804295	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804295	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804295	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804295	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804295	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804295	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804295	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804295	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804295	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	99	75-120	11/12/08	Acceptable
Dibromofluoromethane	99	82-116	11/12/08	Acceptable
Toluene-d8	100	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: 11/07/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: SW-4
Lab Code: J0805418-002

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804295	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804295	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804295	
Chloroethane	ND	UJ	5.0	0.19	1	11/12/08	11/12/08	JWG0804295	J(3)
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804295	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804295	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804295	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804295	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804295	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804295	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804295	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804295	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804295	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804295	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804295	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804295	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804295	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804295	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804295	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804295	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804295	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804295	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804295	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804295	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804295	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804295	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: 11/07/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: SW-4
Lab Code: J0805418-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804295	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804295	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804295	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804295	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804295	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804295	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804295	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804295	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804295	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804295	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/12/08	Acceptable
Dibromofluoromethane	93	82-116	11/12/08	Acceptable
Toluene-d8	102	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: 11/07/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805418-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804295	
Vinyl Chloride	ND	U	1.0	0.25	1	11/12/08	11/12/08	JWG0804295	
Bromomethane	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804295	
Chloroethane	ND	UJ	5.0	0.19	1	11/12/08	11/12/08	JWG0804295	J(3)
Trichlorofluoromethane	ND	U	20	0.25	1	11/12/08	11/12/08	JWG0804295	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/12/08	11/12/08	JWG0804295	
Acetone	ND	U	50	2.4	1	11/12/08	11/12/08	JWG0804295	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/12/08	11/12/08	JWG0804295	
Carbon Disulfide	ND	U	10	0.84	1	11/12/08	11/12/08	JWG0804295	
Methylene Chloride	ND	U	5.0	0.72	1	11/12/08	11/12/08	JWG0804295	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/12/08	11/12/08	JWG0804295	
Acrylonitrile	ND	U	10	0.59	1	11/12/08	11/12/08	JWG0804295	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/12/08	11/12/08	JWG0804295	
Vinyl Acetate	ND	U	10	0.60	1	11/12/08	11/12/08	JWG0804295	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
2-Butanone (MEK)	ND	U	10	0.56	1	11/12/08	11/12/08	JWG0804295	
Bromochloromethane	ND	U	5.0	0.14	1	11/12/08	11/12/08	JWG0804295	
Chloroform	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804295	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804295	
Benzene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804295	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/12/08	11/12/08	JWG0804295	
Dibromomethane	ND	U	5.0	0.12	1	11/12/08	11/12/08	JWG0804295	
Bromodichloromethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/12/08	11/12/08	JWG0804295	
Toluene	ND	U	1.0	0.52	1	11/12/08	11/12/08	JWG0804295	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/12/08	11/12/08	JWG0804295	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/12/08	11/12/08	JWG0804295	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/12/08	11/12/08	JWG0804295	
2-Hexanone	ND	U	25	0.36	1	11/12/08	11/12/08	JWG0804295	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: 11/07/2008
Date Received: 11/07/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805418-003

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/12/08	11/12/08	JWG0804295	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/12/08	11/12/08	JWG0804295	
Chlorobenzene	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
Ethylbenzene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
m,p-Xylenes	ND	U	2.0	0.22	1	11/12/08	11/12/08	JWG0804295	
o-Xylene	ND	U	1.0	0.10	1	11/12/08	11/12/08	JWG0804295	
Styrene	ND	U	1.0	0.051	1	11/12/08	11/12/08	JWG0804295	
Bromoform	ND	U	2.0	0.12	1	11/12/08	11/12/08	JWG0804295	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/12/08	11/12/08	JWG0804295	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/12/08	11/12/08	JWG0804295	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/12/08	11/12/08	JWG0804295	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/12/08	11/12/08	JWG0804295	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/12/08	11/12/08	JWG0804295	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/12/08	11/12/08	JWG0804295	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/12/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/12/08	Acceptable
Dibromofluoromethane	97	82-116	11/12/08	Acceptable
Toluene-d8	100	88-117	11/12/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804295-3

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/11/08	11/11/08	JWG0804295	
Vinyl Chloride	ND	U	1.0	0.25	1	11/11/08	11/11/08	JWG0804295	
Bromomethane	ND	U	1.0	0.14	1	11/11/08	11/11/08	JWG0804295	
Chloroethane	ND	UJ	5.0	0.19	1	11/11/08	11/11/08	JWG0804295	J(3)
Trichlorofluoromethane	ND	U	20	0.25	1	11/11/08	11/11/08	JWG0804295	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/11/08	11/11/08	JWG0804295	
Acetone	ND	U	50	2.4	1	11/11/08	11/11/08	JWG0804295	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/11/08	11/11/08	JWG0804295	
Carbon Disulfide	ND	U	10	0.84	1	11/11/08	11/11/08	JWG0804295	
Methylene Chloride	ND	U	5.0	0.72	1	11/11/08	11/11/08	JWG0804295	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/11/08	11/11/08	JWG0804295	
Acrylonitrile	ND	U	10	0.59	1	11/11/08	11/11/08	JWG0804295	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/11/08	11/11/08	JWG0804295	
Vinyl Acetate	ND	U	10	0.60	1	11/11/08	11/11/08	JWG0804295	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/11/08	11/11/08	JWG0804295	
2-Butanone (MEK)	ND	U	10	0.56	1	11/11/08	11/11/08	JWG0804295	
Bromochloromethane	ND	U	5.0	0.14	1	11/11/08	11/11/08	JWG0804295	
Chloroform	ND	U	1.0	0.10	1	11/11/08	11/11/08	JWG0804295	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/11/08	11/11/08	JWG0804295	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/11/08	11/11/08	JWG0804295	
Benzene	ND	U	1.0	0.52	1	11/11/08	11/11/08	JWG0804295	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/11/08	11/11/08	JWG0804295	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/11/08	11/11/08	JWG0804295	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/11/08	11/11/08	JWG0804295	
Dibromomethane	ND	U	5.0	0.12	1	11/11/08	11/11/08	JWG0804295	
Bromodichloromethane	ND	U	1.0	0.10	1	11/11/08	11/11/08	JWG0804295	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/11/08	11/11/08	JWG0804295	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/11/08	11/11/08	JWG0804295	
Toluene	ND	U	1.0	0.52	1	11/11/08	11/11/08	JWG0804295	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/11/08	11/11/08	JWG0804295	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/11/08	11/11/08	JWG0804295	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/11/08	11/11/08	JWG0804295	
2-Hexanone	ND	U	25	0.36	1	11/11/08	11/11/08	JWG0804295	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804295-3

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/11/08	11/11/08	JWG0804295	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/11/08	11/11/08	JWG0804295	
Chlorobenzene	ND	U	1.0	0.15	1	11/11/08	11/11/08	JWG0804295	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/11/08	11/11/08	JWG0804295	
Ethylbenzene	ND	U	1.0	0.10	1	11/11/08	11/11/08	JWG0804295	
m,p-Xylenes	ND	U	2.0	0.22	1	11/11/08	11/11/08	JWG0804295	
o-Xylene	ND	U	1.0	0.10	1	11/11/08	11/11/08	JWG0804295	
Styrene	ND	U	1.0	0.051	1	11/11/08	11/11/08	JWG0804295	
Bromoform	ND	U	2.0	0.12	1	11/11/08	11/11/08	JWG0804295	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/11/08	11/11/08	JWG0804295	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/11/08	11/11/08	JWG0804295	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/11/08	11/11/08	JWG0804295	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/11/08	11/11/08	JWG0804295	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/11/08	11/11/08	JWG0804295	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	11/11/08	11/11/08	JWG0804295	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/11/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/11/08	Acceptable
Dibromofluoromethane	93	82-116	11/11/08	Acceptable
Toluene-d8	101	88-117	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project:	JED SWDF/FQ1512	**Date Collected:**	11/07/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	SW-3	**Units:**	ug/L
Lab Code:	J0805418-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	111	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project:	JED SWDF/FQ1512	**Date Collected:**	11/07/2008
Sample Matrix:	Water	**Date Received:**	11/07/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	SW-4	**Units:**	ug/L
Lab Code:	J0805418-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	110	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804237-3	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/08/08	11/11/08	JWG0804237	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/08/08	11/11/08	JWG0804237	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	135	77-150	11/11/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805418
Date Collected: 11/7/2008
Date Received: 11/7/2008

Total Metals

Sample Name: SW-3
Lab Code: J0805418-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	0.61	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	11	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.2	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.2	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.6	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	742	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.3	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.7	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	7	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805418
Date Collected: 11/7/2008
Date Received: 11/7/2008

Total Metals

Sample Name: SW-4
Lab Code: J0805418-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	0.50	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	12	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	1.1	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.2	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.6	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/11/2008	11/12/2008	817	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	0.3	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	0.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	6	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805418
Date Collected: N/A
Date Received: N/A

Total Metals

Sample Name: Method Blank
Lab Code: MB2-1111

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/11/2008	11/14/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/11/2008	11/14/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/11/2008	11/14/2008	U	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/11/2008	11/14/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/11/2008	11/14/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/11/2008	11/12/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/12/2008	11/12/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/11/2008	11/14/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/11/2008	11/14/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/11/2008	11/14/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/11/2008	11/14/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/11/2008	11/14/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/11/2008	11/14/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project:	JED SWDF/FQ1512	**Date Collected:**	11/7/2008
Sample Matrix:	Water	**Date Received:**	11/7/2008

Hardness, Total

Prep Method:	METHOD	Units:	mg/L (ppm)
Analysis Method:	SM 2340B	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SW-3	J0805418-001	1.7	0.08	1	11/11/2008	11/12/2008	15	
SW-4	J0805418-002	1.7	0.08	1	11/11/2008	11/12/2008	13	
Method Blank	J081111-MB	1.7	0.08	1	11/11/2008	11/12/2008	0.11	i

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805418
Date Collected : 11/07/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : SW-3
Lab Code : J0805418-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as N, Unionized	mg/L (ppm)	FDEP	0.05	0.008	1	11/19/08 11:15	U	
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/07/08 16:30	U	
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/14/08 12:49	29	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/12/08 18:00	74	
Chlorophyll a (Monochromatic)	mg/m3	SM 10200 H	2.2	2.2	2.2	11/21/08 14:44	U	
Coliform, Fecal	CFU/100mL	SM 9222D	1.6	1.6	1.6	11/07/08 15:15	23	B
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 19:55	U	
Nitrogen, Total as Nitrogen	mg/L (ppm)	300.0 + 351.2	0.5	0.097	1	11/19/08 10:45	0.78	
Phosphorus, Total	mg/L (ppm)	365.1	0.01	0.006	1	11/12/08 09:41	0.030	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	87	
Solids, Total Suspended (TSS)	mg/L (ppm)	160.2	5	1.4	1	11/11/08 16:45	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805418
Date Collected : 11/07/08
Date Received : 11/07/08

Inorganic Parameters

Sample Name : SW-4
Lab Code : J0805418-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as N, Unionized	mg/L (ppm)	FDEP	0.05	0.008	1	11/19/08 11:15	U	
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/07/08 16:30	1.2	i
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/14/08 12:49	31	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/12/08 18:00	76	
Chlorophyll a (Monochromatic)	mg/m3	SM 10200 H	2.0	2.0	2.0	11/21/08 14:44	U	
Coliform, Fecal	CFU/100mL	SM 9222D	10	10	10	11/07/08 15:15	460	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 20:10	U	
Nitrogen, Total as Nitrogen	mg/L (ppm)	300.0 + 351.2	0.5	0.097	1	11/19/08 10:45	0.83	
Phosphorus, Total	mg/L (ppm)	365.1	0.01	0.006	1	11/12/08 09:41	0.040	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	84	
Solids, Total Suspended (TSS)	mg/L (ppm)	160.2	5	1.4	1	11/11/08 16:45	3.3	i

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805418
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805418-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as N, Unionized	mg/L (ppm)	FDEP	0.05	0.008	1	11/19/08 11:15	U	
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	4	0.86	1	11/07/08 16:30	U	
Carbon, Total Organic	mg/L (ppm)	415.1	1	0.41	1	11/14/08 12:49	U	
Chemical Oxygen Demand	mg/L (ppm)	410.2	5	1.5	1	11/12/08 18:00	U	
Chlorophyll a (Monochromatic)	mg/m3	SM 10200 H	1	1	1	11/21/08 14:44	U	
Coliform, Fecal	CFU/100mL	SM 9222D	1	1	1	11/07/08 11:15	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/07/08 15:40	U	
Nitrogen, Total as Nitrogen	mg/L (ppm)	300.0 + 351.2	0.5	0.097	1	11/19/08 10:45	U	
Phosphorus, Total	mg/L (ppm)	365.1	0.01	0.006	1	11/12/08 09:41	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	U	
Solids, Total Suspended (TSS)	mg/L (ppm)	160.2	5	1.4	1	11/11/08 16:45	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
SW-3	J0805418-001	100	99	99	100
SW-4	J0805418-002	96	100	93	102
Trip Blank	J0805418-003	96	100	97	100
Method Blank	JWG0804295-3	96	100	93	101
Lab Control Sample	JWG0804295-1	96	99	99	102
Duplicate Lab Control Sample	JWG0804295-2	97	101	96	99

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Extracted: 11/11/2008
Date Analyzed: 11/11/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804295

	Lab Control Sample JWG0804295-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804295-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Chloromethane	18.1	20.0	91	19.1	20.0	95	67-135	5	30
Vinyl Chloride	18.9	20.0	94	21.8	20.0	109	78-132	14	30
Bromomethane	19.4	20.0	97	18.6	20.0	93	79-130	4	30
Chloroethane	22.5	20.0	112	26.3	20.0	131 *	74-126	16	30
Trichlorofluoromethane	20.6	20.0	103	21.7	20.0	109	74-134	5	30
1,1-Dichloroethene	19.9	20.0	100	20.7	20.0	104	78-130	4	30
Acetone	105	100	105	103	100	103	67-133	2	30
Iodomethane (Methyl Iodide)	104	100	104	119	100	119	68-134	13	30
Carbon Disulfide	101	100	101	109	100	109	76-138	8	30
Methylene Chloride	19.4	20.0	97	19.8	20.0	99	72-124	2	30
trans-1,2-Dichloroethene	19.7	20.0	98	20.7	20.0	103	77-124	5	30
Acrylonitrile	99.1	100	99	103	100	103	77-127	4	30
1,1-Dichloroethane	19.6	20.0	98	20.7	20.0	104	80-128	6	30
Vinyl Acetate	100	100	100	102	100	102	61-148	2	30
cis-1,2-Dichloroethene	19.2	20.0	96	20.2	20.0	101	80-126	5	30
2-Butanone (MEK)	102	100	102	101	100	101	73-127	1	30
Bromochloromethane	20.1	20.0	100	21.4	20.0	107	79-129	7	30
Chloroform	19.5	20.0	98	19.6	20.0	98	83-124	0	30
1,1,1-Trichloroethane (TCA)	20.2	20.0	101	20.7	20.0	104	79-124	3	30
Carbon Tetrachloride	19.6	20.0	98	20.7	20.0	104	81-125	5	30
Benzene	18.5	20.0	92	19.4	20.0	97	79-119	5	30
1,2-Dichloroethane (EDC)	19.7	20.0	99	20.1	20.0	100	80-124	2	30
Trichloroethene (TCE)	18.8	20.0	94	19.7	20.0	98	76-124	4	30
1,2-Dichloropropane	19.0	20.0	95	20.2	20.0	101	79-123	6	30
Dibromomethane	19.9	20.0	100	20.5	20.0	102	83-123	3	30
Bromodichloromethane	19.5	20.0	98	19.8	20.0	99	81-123	1	30
cis-1,3-Dichloropropene	20.8	20.0	104	20.2	20.0	101	86-123	3	30
4-Methyl-2-pentanone (MIBK)	108	100	108	101	100	101	72-136	7	30
Toluene	20.0	20.0	100	19.9	20.0	99	86-117	1	30
trans-1,3-Dichloropropene	20.5	20.0	102	20.2	20.0	101	83-124	1	30
1,1,2-Trichloroethane	19.8	20.0	99	20.3	20.0	102	86-114	3	30
Tetrachloroethene (PCE)	19.3	20.0	96	19.3	20.0	97	80-121	0	30
2-Hexanone	111	100	111	102	100	102	71-138	9	30
Dibromochloromethane	19.8	20.0	99	20.0	20.0	100	82-121	1	30
1,2-Dibromoethane (EDB)	20.0	20.0	100	20.4	20.0	102	88-117	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418
Date Extracted: 11/11/2008
Date Analyzed: 11/11/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804295

	Lab Control Sample JWG0804295-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804295-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Chlorobenzene	19.5	20.0	97	20.2	20.0	101	86-113	4	30
1,1,1,2-Tetrachloroethane	19.9	20.0	100	20.3	20.0	102	85-117	2	30
Ethylbenzene	20.3	20.0	101	20.7	20.0	103	90-118	2	30
m,p-Xylenes	40.1	40.0	100	41.4	40.0	104	86-121	3	30
o-Xylene	20.3	20.0	102	21.2	20.0	106	89-119	4	30
Styrene	20.4	20.0	102	21.5	20.0	108	89-122	6	30
Bromoform	19.6	20.0	98	19.6	20.0	98	68-129	0	30
1,1,2,2-Tetrachloroethane	21.6	20.0	108	19.8	20.0	99	83-120	9	30
1,2,3-Trichloropropane	21.4	20.0	107	19.5	20.0	97	83-123	9	30
1,4-Dichlorobenzene	20.7	20.0	103	20.3	20.0	101	83-113	2	30
trans-1,4-Dichloro-2-butene	19.5	20.0	98	18.3	20.0	92	53-143	6	30
1,2-Dichlorobenzene	21.6	20.0	108	21.1	20.0	106	84-115	2	30
1,2-Dibromo-3-chloropropane (DBCP	25.1	20.0	126 *	20.1	20.0	100	62-123	22	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805418

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SW-3	J0805418-001	111
SW-4	J0805418-002	110
Method Blank	JWG0804237-3	135
Lab Control Sample	JWG0804237-1	132
Duplicate Lab Control Sample	JWG0804237-2	126

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/08/2008
Sample Matrix:	Water	**Date Analyzed:**	11/11/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method:	METHOD	**Units:**	ug/L
Analysis Method:	8011	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804237

	Lab Control Sample JWG0804237-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804237-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	0.266	0.250	106	0.262	0.250	105	70-130	2	20
1,2-Dibromo-3-chloropropane (DBCP	0.265	0.250	106	0.261	0.250	104	70-130	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project Name:	JED SWDF	**Date Collected:**	11/07/2008
Project Number:	FQ1512	**Date Received:**	11/07/2008
Matrix:	WATER	**Date Extracted:**	11/12/2008
		Date Analyzed:	11/12/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	SW-3		**Units:**	ug/L
Lab Code:	J0805418-001	J0805418-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Mercury	METHOD	7470A	0.50	5.00	5.00	U	4.71	4.64	94	93	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/11/2008
		Date Analyzed:	11/14/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS2-1111	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	54.7	109	80 - 120	
Arsenic	EPA 3020A	6020	50.0	50.6	101	80 - 120	
Barium	EPA 3020A	6020	50.0	46.3	93	80 - 120	
Beryllium	EPA 3020A	6020	50.0	49.8	100	80 - 120	
Cadmium	EPA 3020A	6020	50.0	53.3	107	80 - 120	
Chromium	EPA 3020A	6020	50.0	49.8	100	80 - 120	
Cobalt	EPA 3020A	6020	50.0	51.1	102	80 - 120	
Copper	EPA 3020A	6020	50.0	51.5	103	80 - 120	
Iron	EPA 3010A	6010B	2000	1960	98	80 - 120	
Lead	EPA 3020A	6020	50.0	48.1	96	80 - 120	
Mercury	METHOD	7470A	5.00	5.00	100	80 - 120	
Nickel	EPA 3020A	6020	50.0	50.5	101	80 - 120	
Selenium	EPA 3020A	6020	50.0	52.7	105	80 - 120	
Silver	EPA 3020A	6020	50.0	58.4	117	80 - 120	
Thallium	EPA 3020A	6020	50.0	46.1	92	80 - 120	
Vanadium	EPA 3020A	6020	50.0	50.4	101	80 - 120	
Zinc	EPA 3020A	6020	100	98.9	99	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805418
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	11/11/2008
		Date Analyzed:	11/12/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	Units:	mg/L (ppm)
Lab Code:	J081111-LCS	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Hardness as CaCO3, Total	METHOD	SM 2340B	91.1	90.1	99	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805418
Date Collected : 11/07/08
Date Received : 11/07/08
Date Extracted : 11/07/08
Date Analyzed : 11/11-21/08

Duplicate Summary
Inorganic Parameters

Sample Name : SW-3
Lab Code : J0805418-001DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chlorophyll a (Monochromatic)	mg/m3	SM 10200 H	2.2	U	U	U	-	
Phosphorus, Total	mg/L (ppm)	365.1	0.01	0.030	0.026	0.028	14	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	87	99	93	13	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805418
Date Collected : 11/07/08
Date Received : 11/07/08
Date Extracted : 11/11/08
Date Analyzed : 11/12/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : SW-3
Lab Code : J0805418-001MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Phosphorus, Total	mg/L (ppm)	365.1	0.01	0.500	0.030	0.541	102	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805418
Date Collected : 11/07/08
Date Received : 11/07/08
Date Extracted : NA
Date Analyzed : 11/07-12/08

Duplicate Summary
Inorganic Parameters

Sample Name : SW-4
Lab Code : J0805418-002DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	
Phosphorus, Total	mg/L (ppm)	365.1	0.01	0.040	0.045	0.0425	12	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	84	95	89.5	12	
Solids, Total Suspended (TSS)	mg/L (ppm)	160.2	5	3.30	2.0	2.65	49	i

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805418
Date Collected : 11/07/08
Date Received : 11/07/08
Date Extracted : NA
Date Analyzed : 11/07-12/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : SW-4
Lab Code : J0805418-002MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.15	103	90-110	
Phosphorus, Total	mg/L (ppm)	365.1	0.01	0.500	0.040	0.552	102	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805418
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/07-14/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805418-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Biochemical Oxygen Demand (BOD)	mg/L (ppm)	405.1	198	200	101	85-115	
Carbon, Total Organic	mg/L (ppm)	415.1	50	51.0	102	90-110	
Chemical Oxygen Demand	mg/L (ppm)	410.2	85.8	80.0	93	85-115	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.00	100	90-110	
Phosphorus, Total	mg/L (ppm)	365.1	0.500	0.521	104	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	287	96	85-115	
Solids, Total Suspended (TSS)	mg/L (ppm)	160.2	80	74.0	93	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec
Project: JED SWDF
Service Request # J0J05478

Cooler received on 11-7-08 and opened on 11-7-08 by [illegible]

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C) 5-3			
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2
Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR #: J080548 Date: 11-7-08 Initials: DWK

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4					Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
-001	3	3				1		1									1		1		1								1	
-002	3	3				1		1									1		1		1								1	
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Columbia Analytical Services INC.
An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR # J080548
CAS Contact

Project Name: JED SWDF	Project Number: FQ 1572
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number an [redacted]

PRESERVATIVE: 1 0 1 2 3 0 0 8

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	TOC	Metals	NH_3, T-Ph, TKN, COD	TDS, TSS, NO, NO, BOD	Chlorophyll A	Fecal Coliform								REMARKS/ ALTERNATE DESCRIPTION
SW-3		11-7-08	1030	SW	12	X	X	X	X	X	X	X	X								
SW-4		11-7-08	1000	SW	12	X	X	X	X	X	X	X	X								
Trip blank		~~10-27-08~~ 11-7-08 JT		W	3	X															

1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other $Na_2S_2O_3$

SPECIAL INSTRUCTIONS/COMMENTS

	Temp. (°C)	pH
SW-3	17.56	5.06
SW-4	18.00	4.70

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: 40 CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: [signature]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm	Firm	Firm	Firm	Firm
Date/Time: 11-7-08/1355	Date/Time: 11-7-08 1355	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

November 25, 2008

Service Request No: J0805457

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 11, 2008. For your reference, these analyses have been assigned our service request number **J0805457**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805457
Project:	JED SWDF	**Date Received:**	11/11/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Nine water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/11/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analyte in Second Source Verification (SSV) CAL1659: trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Matrix Spike Recovery Exceptions

The matrix spike recoveries of Bromomethane, Chloroethane and trans-1,4-Dichloro-2-butene for sample MW-23A were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total and Dissolved Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Approved by Craig R Mu **Date** 11/25/08

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA Methods. No problems were observed.

Approved by _____ **Date** 11/25/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805457

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805457-001	MW-23A	11/10/08	08:45
J0805457-002	MW-23B	11/10/08	08:55
J0805457-003	MW-23C	11/10/08	09:35
J0805457-004	MW-22A	11/10/08	11:35
J0805457-005	MW-22B	11/10/08	12:30
J0805457-006	MW-22C	11/10/08	11:50
J0805457-007	MW-21A	11/10/08	15:10
J0805457-008	MW-21B	11/10/08	15:30
J0805457-009	MW-21C	11/10/08	14:55
J0805457-010	Trip Blank	11/10/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-23A
Lab Code: J0805457-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-23A
Lab Code: J0805457-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	101	75-120	11/14/08	Acceptable
Dibromofluoromethane	95	82-116	11/14/08	Acceptable
Toluene-d8	97	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-23B
Lab Code: J0805457-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	**0.58**	I	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-23B
Lab Code: J0805457-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	99	75-120	11/14/08	Acceptable
Dibromofluoromethane	92	82-116	11/14/08	Acceptable
Toluene-d8	98	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-23C
Lab Code: J0805457-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-23C
Lab Code: J0805457-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	95	75-120	11/14/08	Acceptable
Dibromofluoromethane	98	82-116	11/14/08	Acceptable
Toluene-d8	96	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-22A
Lab Code: J0805457-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-22A	**Units:**	ug/L
Lab Code:	J0805457-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	97	75-120	11/14/08	Acceptable
Dibromofluoromethane	99	82-116	11/14/08	Acceptable
Toluene-d8	97	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-22B
Lab Code: J0805457-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-22B
Lab Code: J0805457-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	94	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	96	75-120	11/14/08	Acceptable
Dibromofluoromethane	93	82-116	11/14/08	Acceptable
Toluene-d8	95	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-22C
Lab Code: J0805457-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-22C	**Units:**	ug/L
Lab Code:	J0805457-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/14/08	Acceptable
Dibromofluoromethane	97	82-116	11/14/08	Acceptable
Toluene-d8	90	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-21A
Lab Code: J0805457-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-21A
Lab Code: J0805457-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	101	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	99	75-120	11/14/08	Acceptable
Dibromofluoromethane	99	82-116	11/14/08	Acceptable
Toluene-d8	97	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-21B
Lab Code: J0805457-008

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-21B	**Units:**	ug/L
Lab Code:	J0805457-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	93	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	95	75-120	11/14/08	Acceptable
Dibromofluoromethane	93	82-116	11/14/08	Acceptable
Toluene-d8	96	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-21C
Lab Code: J0805457-009

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-21C
Lab Code: J0805457-009

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	97	75-120	11/14/08	Acceptable
Dibromofluoromethane	95	82-116	11/14/08	Acceptable
Toluene-d8	94	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805457-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	J0805457-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	97	75-120	11/14/08	Acceptable
Dibromofluoromethane	98	82-116	11/14/08	Acceptable
Toluene-d8	95	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804378-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804378-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	96	75-120	11/14/08	Acceptable
Dibromofluoromethane	96	82-116	11/14/08	Acceptable
Toluene-d8	96	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-23A	**Units:**	ug/L
Lab Code:	J0805457-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/17/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/17/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	126	77-150	11/17/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-23B	**Units:**	ug/L
Lab Code:	J0805457-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/17/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/17/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	128	77-150	11/17/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-23C	**Units:**	ug/L
Lab Code:	J0805457-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/17/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/17/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	115	77-150	11/17/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-22A	**Units:**	ug/L
Lab Code:	J0805457-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/17/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/17/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	128	77-150	11/17/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-22B	**Units:**	ug/L
Lab Code:	J0805457-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	134	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-22C	**Units:**	ug/L
Lab Code:	J0805457-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	130	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-21A	**Units:**	ug/L
Lab Code:	J0805457-007	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	125	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-21B	**Units:**	ug/L
Lab Code:	J0805457-008	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	130	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	11/10/2008
Sample Matrix:	Water	**Date Received:**	11/11/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-21C	**Units:**	ug/L
Lab Code:	J0805457-009	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	128	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804354-3	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/17/08	JWG0804354	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/17/08	JWG0804354	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	127	77-150	11/17/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-23A
Lab Code: J0805457-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	0.30	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	10	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.17	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	1.6	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	2800	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	0.9	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	1.5	i
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-23B
Lab Code: J0805457-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	9.2	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	1.0	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.2	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	1.3	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	452	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.3	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	0.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	9	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-23C
Lab Code: J0805457-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	10	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.13	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	1.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	496	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.2	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	0.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	1.3	i
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-22A
Lab Code: J0805457-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	0.21	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	14	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.27	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	1.9	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.8	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	1.3	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	291	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.3	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	2.1	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	0.22	i
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	2.8	i
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	8	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-22B
Lab Code: J0805457-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	0.77	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	41	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.35	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	4.1	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.8	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	2.1	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	1650	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	4.0	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	1.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	1.1	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	6.8	
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-22C
Lab Code: J0805457-006

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	18	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.14	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	1.4	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	496	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	1.5	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	6	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-21A
Lab Code: J0805457-007

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	26	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.44	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	1.5	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	0.3	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	181	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.6	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	2.0	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	4.3	i
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-21B
Lab Code: J0805457-008

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	0.23	i
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	23	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.16	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	2.3	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	1.4	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	1900	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	1.4	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	0.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	2.9	i
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Total Metals

Sample Name: MW-21C
Lab Code: J0805457-009

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	0.58	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	61	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	0.3	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	0.25	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	3.7	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	0.5	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/17/2008	11/18/2008	1920	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	1.0	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	0.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/21/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	4.0	i
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: N/A
Date Received: N/A

Total Metals

Sample Name: Method Blank
Lab Code: MB3-1119

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/19/2008	11/20/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/19/2008	11/20/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/19/2008	11/20/2008	0.6	i
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/19/2008	11/20/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/19/2008	11/20/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/17/2008	11/18/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/19/2008	11/20/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/19/2008	11/20/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/19/2008	11/20/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/19/2008	11/20/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/19/2008	11/20/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/19/2008	11/20/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	11/10/2008
Project Number:	FQ1512	**Date Received:**	11/11/2008
Matrix:	WATER		

Total Metals
Sodium

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-23A	J0805457-001	0.50	0.02	1.0	11/17/2008	11/18/2008	12	
MW-23B	J0805457-002	0.50	0.02	1.0	11/17/2008	11/18/2008	10	
MW-23C	J0805457-003	0.50	0.02	1.0	11/17/2008	11/18/2008	5.4	
MW-22A	J0805457-004	0.50	0.02	1.0	11/17/2008	11/18/2008	12	
MW-22B	J0805457-005	0.50	0.02	1.0	11/17/2008	11/18/2008	9.8	
MW-22C	J0805457-006	0.50	0.02	1.0	11/17/2008	11/18/2008	6.3	
MW-21A	J0805457-007	0.50	0.02	1.0	11/17/2008	11/18/2008	7.9	
MW-21B	J0805457-008	0.50	0.02	1.0	11/17/2008	11/18/2008	15	
MW-21C	J0805457-009	0.50	0.02	1.0	11/17/2008	11/18/2008	8.9	
Method Blank	MB2-1117	0.50	0.02	1.0	11/17/2008	11/18/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	11/10/2008
Project Number:	FQ1512	**Date Received:**	11/11/2008
Matrix:	WATER		

Dissolved Metals

Sample Name:	MW-22B	**Units:**	ug/L
Lab Code:	J0805457-005	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/13/2008	11/17/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/13/2008	11/17/2008	0.28	i
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/13/2008	11/17/2008	11	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/13/2008	11/17/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/13/2008	11/17/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	0.3	i
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	0.4	i
Iron	EPA 3005A	6010B	50	4.0	1.0	11/13/2008	11/13/2008	1310	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/13/2008	11/17/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/13/2008	11/17/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/13/2008	11/17/2008	U	
Zinc	EPA 3005A	6020	10	4.0	1.0	11/13/2008	11/17/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: 11/10/2008
Date Received: 11/11/2008

Dissolved Metals

Sample Name: MW-21C
Lab Code: J0805457-009

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/13/2008	11/17/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/13/2008	11/17/2008	0.67	
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/13/2008	11/17/2008	61	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	0.3	i
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/13/2008	11/17/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/13/2008	11/17/2008	3.0	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	0.4	i
Iron	EPA 3005A	6010B	50	4.0	1.0	11/13/2008	11/13/2008	1480	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	0.9	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	0.4	i
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/13/2008	11/17/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/13/2008	11/17/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/13/2008	11/17/2008	3.3	i
Zinc	EPA 3005A	6020	10	4.0	1.0	11/13/2008	11/17/2008	4.2	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: N/A
Date Received: N/A

Dissolved Metals

Sample Name: Method Blank
Lab Code: MB3-1113

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/13/2008	11/17/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/13/2008	11/17/2008	U	
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/13/2008	11/17/2008	U	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/13/2008	11/17/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/13/2008	11/17/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	U	
Iron	EPA 3005A	6010B	50.0	4.0	1.0	11/13/2008	11/13/2008	U	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/14/2008	11/14/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/13/2008	11/17/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/13/2008	11/17/2008	U	
Silver	EPA 3005A	6020	0.5	0.1	1.0	11/13/2008	11/17/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/13/2008	11/17/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/13/2008	11/17/2008	U	
Zinc	EPA 3005A	6020	10.0	4.0	1.0	11/13/2008	11/17/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	11/10/2008
Project Number:	FQ1512	**Date Received:**	11/11/2008
Matrix:	WATER		

Dissolved Metals
Sodium

Prep Method:	EPA 3005A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-22B	J0805457-005	0.50	0.02	1.0	11/13/2008	11/13/2008	9.7	
MW-21C	J0805457-009	0.50	0.02	1.0	11/13/2008	11/13/2008	9.6	
Method Blank	MB2-1113	0.50	0.02	1.0	11/13/2008	11/13/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-23A
Lab Code : J0805457-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.40	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	29	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/11/08 22:08	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	130	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-23B
Lab Code : J0805457-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.080	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	17	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/11/08 22:53	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	32	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-23C
Lab Code : J0805457-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.10	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	8.6	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/11/08 23:08	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	54	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-22A
Lab Code : J0805457-004
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.069	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	14	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/11/08 23:23	0.22	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	67	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-22B
Lab Code : J0805457-005
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.13	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	13	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/11/08 23:38	0.15	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	62	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-22C
Lab Code : J0805457-006
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.11	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	9.1	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 00:37	0.15	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	300	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-21A
Lab Code : J0805457-007
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	12	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 00:52	0.20	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	73	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-21B
Lab Code : J0805457-008
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.17	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	27	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 01:07	0.15	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	56	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08

Inorganic Parameters

Sample Name : MW-21C
Lab Code : J0805457-009
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	0.22	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	20	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 01:22	0.15	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	85	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805457-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/13/08 10:55	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/11/08 21:23	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/11/08 21:23	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/11/08 16:15	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
MW-23A	J0805457-001	98	101	95	97
MW-23B	J0805457-002	97	99	92	98
MW-23C	J0805457-003	100	95	98	96
MW-22A	J0805457-004	100	97	99	97
MW-22B	J0805457-005	94	96	93	95
MW-22C	J0805457-006	99	94	97	90
MW-21A	J0805457-007	101	99	99	97
MW-21B	J0805457-008	93	95	93	96
MW-21C	J0805457-009	100	97	95	94
Trip Blank	J0805457-010	98	97	98	95
Method Blank	JWG0804378-4	98	96	96	96
MW-23AMS	JWG0804378-1	96	98	94	95
MW-23ADMS	JWG0804378-2	100	94	97	96
Lab Control Sample	JWG0804378-3	95	97	94	95

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Extracted: 11/14/2008
Date Analyzed: 11/14/2008

Matrix Spike/Duplicate Matrix Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-23A
Lab Code: J0805457-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low
Extraction Lot: JWG0804378

Analyte Name	Sample Result	MW-23AMS JWG0804378-1 Matrix Spike			MW-23ADMS JWG0804378-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Chloromethane	ND	25.0	20.0	125	25.3	20.0	127	73-139	1	30
Vinyl Chloride	ND	24.4	20.0	122	25.8	20.0	129	78-141	5	30
Bromomethane	ND	14.2	20.0	71 *	16.1	20.0	81	78-129	13	30
Chloroethane	ND	24.2	20.0	121	30.8	20.0	154 *	76-129	24	30
Trichlorofluoromethane	ND	25.0	20.0	125	25.7	20.0	129	81-133	3	30
1,1-Dichloroethene	ND	24.8	20.0	124	25.4	20.0	127	79-133	2	30
Acetone	ND	104	100	104	110	100	110	56-139	6	30
Iodomethane (Methyl Iodide)	ND	88.1	100	88	111	100	111	74-134	23	30
Carbon Disulfide	ND	120	100	120	122	100	122	71-146	2	30
Methylene Chloride	ND	21.9	20.0	109	22.4	20.0	112	75-123	2	30
trans-1,2-Dichloroethene	ND	21.5	20.0	108	23.1	20.0	116	76-125	7	30
Acrylonitrile	ND	110	100	110	113	100	113	68-131	3	30
1,1-Dichloroethane	ND	21.6	20.0	108	22.6	20.0	113	78-125	5	30
Vinyl Acetate	ND	89.7	100	90	93.2	100	93	43-163	4	30
cis-1,2-Dichloroethene	ND	21.0	20.0	105	21.8	20.0	109	75-127	4	30
2-Butanone (MEK)	ND	97.3	100	97	105	100	105	63-134	8	30
Bromochloromethane	ND	22.7	20.0	114	23.6	20.0	118	80-124	4	30
Chloroform	ND	23.2	20.0	116	23.2	20.0	116	81-124	0	30
1,1,1-Trichloroethane (TCA)	ND	23.2	20.0	116	23.8	20.0	119	76-130	3	30
Carbon Tetrachloride	ND	22.9	20.0	115	23.5	20.0	118	76-131	3	30
Benzene	ND	21.3	20.0	106	22.7	20.0	113	78-123	6	30
1,2-Dichloroethane (EDC)	ND	21.6	20.0	108	22.6	20.0	113	74-126	5	30
Trichloroethene (TCE)	ND	21.3	20.0	106	22.3	20.0	112	77-128	5	30
1,2-Dichloropropane	ND	22.0	20.0	110	23.1	20.0	115	77-122	5	30
Dibromomethane	ND	21.1	20.0	106	21.8	20.0	109	78-124	3	30
Bromodichloromethane	ND	20.4	20.0	102	21.5	20.0	107	79-125	5	30
cis-1,3-Dichloropropene	ND	19.2	20.0	96	20.5	20.0	102	77-117	6	30
4-Methyl-2-pentanone (MIBK)	ND	98.3	100	98	105	100	105	65-138	7	30
Toluene	ND	21.2	20.0	106	21.8	20.0	109	86-119	3	30
trans-1,3-Dichloropropene	ND	19.3	20.0	96	20.1	20.0	100	75-120	4	30
1,1,2-Trichloroethane	ND	19.9	20.0	99	21.1	20.0	105	77-124	6	30
Tetrachloroethene (PCE)	ND	21.1	20.0	106	21.2	20.0	106	79-123	0	30
2-Hexanone	ND	99.6	100	100	107	100	107	63-142	7	30
Dibromochloromethane	ND	20.2	20.0	101	20.6	20.0	103	78-124	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/14/2008
Sample Matrix:	Water	**Date Analyzed:**	11/14/2008

Matrix Spike/Duplicate Matrix Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Sample Name:	MW-23A	**Units:**	ug/L
Lab Code:	J0805457-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	JWG0804378

		MW-23AMS JWG0804378-1 Matrix Spike			MW-23ADMS JWG0804378-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	ND	20.1	20.0	100	20.6	20.0	103	81-119	2	30
Chlorobenzene	ND	20.3	20.0	102	21.1	20.0	106	81-120	4	30
1,1,1,2-Tetrachloroethane	ND	19.8	20.0	99	20.7	20.0	103	82-118	4	30
Ethylbenzene	ND	22.5	20.0	113	22.4	20.0	112	87-122	0	30
m,p-Xylenes	ND	42.5	40.0	106	43.6	40.0	109	82-120	3	30
o-Xylene	ND	21.4	20.0	107	22.3	20.0	111	85-119	4	30
Styrene	ND	21.4	20.0	107	21.5	20.0	108	84-126	1	30
Bromoform	ND	18.3	20.0	91	19.0	20.0	95	70-129	4	30
1,1,2,2-Tetrachloroethane	ND	20.5	20.0	103	22.0	20.0	110	72-127	7	30
1,2,3-Trichloropropane	ND	19.3	20.0	97	20.2	20.0	101	76-123	5	30
1,4-Dichlorobenzene	ND	20.4	20.0	102	21.0	20.0	105	75-115	3	30
trans-1,4-Dichloro-2-butene	ND	28.7	20.0	144 *	27.9	20.0	139 *	22-135	3	30
1,2-Dichlorobenzene	ND	20.9	20.0	104	21.2	20.0	106	77-116	2	30
1,2-Dibromo-3-chloropropane (DBCP	ND	16.8	20.0	84	19.6	20.0	98	54-120	15	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Extracted: 11/14/2008
Date Analyzed: 11/14/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804378

	Lab Control Sample JWG0804378-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Chloromethane	15.3	20.0	76	67-135
Vinyl Chloride	17.5	20.0	87	78-132
Bromomethane	21.3	20.0	106	79-130
Chloroethane	21.4	20.0	107	74-126
Trichlorofluoromethane	21.1	20.0	106	74-134
1,1-Dichloroethene	19.9	20.0	99	78-130
Acetone	97.7	100	98	67-133
Iodomethane (Methyl Iodide)	91.4	100	91	68-134
Carbon Disulfide	90.7	100	91	76-138
Methylene Chloride	20.3	20.0	102	72-124
trans-1,2-Dichloroethene	19.1	20.0	96	77-124
Acrylonitrile	105	100	105	77-127
1,1-Dichloroethane	19.4	20.0	97	80-128
Vinyl Acetate	94.9	100	95	61-148
cis-1,2-Dichloroethene	19.9	20.0	99	80-126
2-Butanone (MEK)	94.1	100	94	73-127
Bromochloromethane	20.6	20.0	103	79-129
Chloroform	20.0	20.0	100	83-124
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	79-124
Carbon Tetrachloride	19.9	20.0	99	81-125
Benzene	19.4	20.0	97	79-119
1,2-Dichloroethane (EDC)	20.0	20.0	100	80-124
Trichloroethene (TCE)	18.6	20.0	93	76-124
1,2-Dichloropropane	19.7	20.0	99	79-123
Dibromomethane	19.8	20.0	99	83-123
Bromodichloromethane	19.7	20.0	98	81-123
cis-1,3-Dichloropropene	19.7	20.0	99	86-123
4-Methyl-2-pentanone (MIBK)	102	100	102	72-136
Toluene	19.7	20.0	98	86-117
trans-1,3-Dichloropropene	20.2	20.0	101	83-124
1,1,2-Trichloroethane	19.8	20.0	99	86-114
Tetrachloroethene (PCE)	19.6	20.0	98	80-121
2-Hexanone	102	100	102	71-138
Dibromochloromethane	19.5	20.0	98	82-121
1,2-Dibromoethane (EDB)	20.4	20.0	102	88-117
Chlorobenzene	19.9	20.0	99	86-113

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Extracted: 11/14/2008
Date Analyzed: 11/14/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804378

	Lab Control Sample JWG0804378-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
1,1,1,2-Tetrachloroethane	20.6	20.0	103	85-117
Ethylbenzene	20.3	20.0	102	90-118
m,p-Xylenes	40.7	40.0	102	86-121
o-Xylene	20.1	20.0	100	89-119
Styrene	19.9	20.0	100	89-122
Bromoform	19.5	20.0	98	68-129
1,1,2,2-Tetrachloroethane	21.4	20.0	107	83-120
1,2,3-Trichloropropane	21.3	20.0	106	83-123
1,4-Dichlorobenzene	20.8	20.0	104	83-113
trans-1,4-Dichloro-2-butene	17.8	20.0	89	53-143
1,2-Dichlorobenzene	21.2	20.0	106	84-115
1,2-Dibromo-3-chloropropane (DBCP	23.7	20.0	119	62-123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
MW-23A	J0805457-001	126
MW-23B	J0805457-002	128
MW-23C	J0805457-003	115
MW-22A	J0805457-004	128
MW-22B	J0805457-005	134
MW-22C	J0805457-006	130
MW-21A	J0805457-007	125
MW-21B	J0805457-008	130
MW-21C	J0805457-009	128
Method Blank	JWG0804354-3	127
Lab Control Sample	JWG0804354-1	131
Duplicate Lab Control Sample	JWG0804354-2	123

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805457
Date Extracted: 11/16/2008
Date Analyzed: 11/17/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804354

	Lab Control Sample JWG0804354-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804354-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	0.322	0.250	129	0.310	0.250	124	70-130	4	20
1,2-Dibromo-3-chloropropane (DBCP	0.304	0.250	122	0.277	0.250	111	70-130	9	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	11/10/2008
Project Number:	FQ1512	**Date Received:**	11/11/2008
Matrix:	WATER	**Date Extracted:**	11/17/2008
		Date Analyzed:	11/18/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-23A		**Units:**	ug/L
Lab Code:	J0805457-001	J0805457-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Iron	EPA 3010	6010B	50	2000	2000	2800	4710	4840	96	102	3	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805457
Date Collected: N/A
Date Received: N/A
Date Extracted: 11/19/2008
Date Analyzed: 11/20/2008

Laboratory Control Sample Summary
Total Metals

Sample Name: Lab Control Sample
Lab Code: LCS3-1119

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	50.5	101	80 - 120	
Arsenic	EPA 3020A	6020	50.0	43.6	87	80 - 120	
Barium	EPA 3020A	6020	50.0	48.6	97	80 - 120	
Beryllium	EPA 3020A	6020	50.0	45.0	90	80 - 120	
Cadmium	EPA 3020A	6020	50.0	46.3	93	80 - 120	
Chromium	EPA 3020A	6020	50.0	48.4	97	80 - 120	
Cobalt	EPA 3020A	6020	50.0	48.6	97	80 - 120	
Copper	EPA 3020A	6020	50.0	47.4	95	80 - 120	
Iron	EPA 3010A	6010B	2000	1970	98	80 - 120	
Lead	EPA 3020A	6020	50.0	50.5	101	80 - 120	
Mercury	METHOD	7470A	5.00	4.78	96	80 - 120	
Nickel	EPA 3020A	6020	50.0	48.4	97	80 - 120	
Selenium	EPA 3020A	6020	50.0	41.4	83	80 - 120	
Silver	EPA 3020A	6020	50.0	51.6	103	80 - 120	
Thallium	EPA 3020A	6020	50.0	49.9	100	80 - 120	
Vanadium	EPA 3020A	6020	50.0	48.2	96	80 - 120	
Zinc	EPA 3020A	6020	100	89.4	89	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	11/10/2008
Project Number:	FQ1512	**Date Received:**	11/11/2008
Matrix:	WATER	**Date Extracted:**	11/17/2008
		Date Analyzed:	11/18/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-23A		**Units:**	mg/L
Lab Code:	J0805457-001	J0805457-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Sodium	EPA 3010	6010B	0.5	10.0	10.0	11.8	21.2	22.0	94	102	4	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/17/2008
		Date Analyzed:	11/18/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS2-1117	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	10.2	102	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/17/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS3-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3005A	6020	50.0	53.3	107	80 - 120	
Arsenic	EPA 3005A	6020	50.0	48.5	97	80 - 120	
Barium	EPA 3005A	6020	50.0	49.4	99	80 - 120	
Beryllium	EPA 3005A	6020	50.0	50.6	101	80 - 120	
Cadmium	EPA 3005A	6020	50.0	48.8	98	80 - 120	
Chromium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Cobalt	EPA 3005A	6020	50.0	49.8	100	80 - 120	
Copper	EPA 3005A	6020	50.0	49.5	99	80 - 120	
Iron	EPA 3005A	6010B	2000	2010	100	80 - 120	
Lead	EPA 3005A	6020	50.0	50.4	101	80 - 120	
Mercury	METHOD	7470A	5.00	4.78	96	80 - 120	
Nickel	EPA 3005A	6020	50.0	50.3	101	80 - 120	
Selenium	EPA 3005A	6020	50.0	48.9	98	80 - 120	
Silver	EPA 3005A	6020	50.0	52.9	106	80 - 120	
Thallium	EPA 3005A	6020	50.0	49.1	98	80 - 120	
Vanadium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Zinc	EPA 3005A	6020	100	101.0	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805457
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/13/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS2-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3005A	6010B	10.0	10.1	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08
Date Extracted : NA
Date Analyzed : 11/11/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-23A
Lab Code : J0805457-001DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	29	29	29	<1	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805457
Date Collected : 11/10/08
Date Received : 11/11/08
Date Extracted : NA
Date Analyzed : 11/11/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-23A
Lab Code : J0805457-001MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	100	29	130	101	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.47	109	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805457
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/11-13/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805457-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	4.96	99	90-110	
Chloride	mg/L (ppm)	300.0	5.00	5.19	104	90-110	
Chloride	mg/L (ppm)	300.0	100	104	104	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.17	103	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	287	96	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec | Service Request # JW05457

Project: JED SWDF

Cooler received on 11/11/08 and opened on 11/11/08 by TDK

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C) 2.6			
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date: 80

SR # : J0805453 Date: 11/11/08 Initials: JDK

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40ml	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-001	3	3					1	1	1																					
-002	3	3						1																						
-003	3	3						1																						
-004	3	3						1																						
-005	3	3						2																						
-006	3	3						1																						
-007	3	3						1																						
-008	3	3						1																						
-009	3	3						2																						
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-039																														
-040																														

Columbia Analytical Services INC.
An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR # JUD5457
CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste. 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number a [redacted]

PRESERVATIVE: 1 0 3 2 0 2

1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH3	Metals	TDS, Cl, NO3	Dissolved Metals	REMARKS/ ALTERNATE DESCRIPTION
MW-23A		11-10-08	0845	GW	9	X	X	X	X	X		
MW-23B			0855		9							
MW-23C			0935		9							
MW-22A			1135		9							
MW-22B			1230		10						X	
MW-22C			1150		9							
MW-21A			1510		9							
MW-21B			1530		9							
MW-21C			1455		10						X	
Trip Blank				W	3							

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-10-08/1645	Date/Time: 11/11/08 945	Date/Time	Date/Time	Date/Time	Date/Time

82

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

December 02, 2008 Service Request No: J0805492

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 12, 2008. For your reference, these analyses have been assigned our service request number **J0805492**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805492
Project:	JED SWDF	**Date Received:**	11/12/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Eleven water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/12/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analyte in Second Source Verification (SSV) CAL1659: trans-1,4-Dichloro-2-butene. The field sample analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total and Dissolved Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Approved by _____ **Date** 12/2/08

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA Methods. No problems were observed.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Approved by Craig R Hy **Date** 12/2/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805492

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805492-001	MW-20A	11/11/08	10:05
J0805492-002	MW-20B	11/11/08	09:35
J0805492-003	MW-20C	11/11/08	09:10
J0805492-004	MW-16A	11/11/08	12:50
J0805492-005	MW-16B	11/11/08	12:30
J0805492-006	MW-16C	11/11/08	11:50
J0805492-007	MW-17A	11/11/08	14:25
J0805492-008	MW-17B	11/11/08	14:15
J0805492-009	MW-17C	11/11/08	14:50
J0805492-010	DUP-2	11/11/08	00:00
J0805492-011	Equipment Blank	11/11/08	07:30
J0805492-012	Trip Blank	11/11/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-20A
Lab Code: J0805492-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	**13**	I	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	**22**		10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-20A
Lab Code: J0805492-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	98	75-120	11/15/08	Acceptable
Dibromofluoromethane	96	82-116	11/15/08	Acceptable
Toluene-d8	96	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-20B
Lab Code: J0805492-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-20B
Lab Code: J0805492-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	96	75-120	11/15/08	Acceptable
Dibromofluoromethane	96	82-116	11/15/08	Acceptable
Toluene-d8	97	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-20C
Lab Code: J0805492-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-20C
Lab Code: J0805492-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/15/08	Acceptable
Dibromofluoromethane	93	82-116	11/15/08	Acceptable
Toluene-d8	94	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-16A
Lab Code: J0805492-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-16A
Lab Code: J0805492-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	98	75-120	11/15/08	Acceptable
Dibromofluoromethane	93	82-116	11/15/08	Acceptable
Toluene-d8	98	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-16B
Lab Code: J0805492-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-16B
Lab Code: J0805492-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	100	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/15/08	Acceptable
Dibromofluoromethane	97	82-116	11/15/08	Acceptable
Toluene-d8	92	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-16C
Lab Code: J0805492-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	**5.2**		1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-16C
Lab Code: J0805492-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	**0.33**	I	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/15/08	Acceptable
Dibromofluoromethane	96	82-116	11/15/08	Acceptable
Toluene-d8	98	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-17A
Lab Code: J0805492-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-17A
Lab Code: J0805492-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	103	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/15/08	Acceptable
Dibromofluoromethane	100	82-116	11/15/08	Acceptable
Toluene-d8	98	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-17B
Lab Code: J0805492-008

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-17B
Lab Code: J0805492-008

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	101	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	96	75-120	11/15/08	Acceptable
Dibromofluoromethane	94	82-116	11/15/08	Acceptable
Toluene-d8	92	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-17C
Lab Code: J0805492-009

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-17C
Lab Code: J0805492-009

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	104	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	98	75-120	11/15/08	Acceptable
Dibromofluoromethane	101	82-116	11/15/08	Acceptable
Toluene-d8	99	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: DUP-2
Lab Code: J0805492-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	**4.3**		1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: DUP-2
Lab Code: J0805492-010

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	**0.30**	I	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/15/08	Acceptable
Dibromofluoromethane	100	82-116	11/15/08	Acceptable
Toluene-d8	96	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Equipment Blank
Lab Code: J0805492-011

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	**0.62**	I	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Equipment Blank
Lab Code: J0805492-011

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	102	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/15/08	Acceptable
Dibromofluoromethane	96	82-116	11/15/08	Acceptable
Toluene-d8	98	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805492-012

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805492-012

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	103	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/15/08	Acceptable
Dibromofluoromethane	97	82-116	11/15/08	Acceptable
Toluene-d8	97	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804376-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804376	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804376	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804376	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804376	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804376	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804376	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804376	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804376	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804376	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804376	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804376	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804376	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804376	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804376	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804376	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804376	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804376	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804376	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804376	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804376	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804376-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804376	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804376	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804376	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804376	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804376	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804376	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804376	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804376	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/15/08	11/15/08	JWG0804376	J(3)
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804376	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804376	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	101	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/15/08	Acceptable
Dibromofluoromethane	96	82-116	11/15/08	Acceptable
Toluene-d8	97	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-20A	**Units:**	ug/L
Lab Code:	J0805492-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	128	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-20B	**Units:**	ug/L
Lab Code:	J0805492-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	133	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-20C	**Units:**	ug/L
Lab Code:	J0805492-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	117	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-16A	**Units:**	ug/L
Lab Code:	J0805492-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	132	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-16B	**Units:**	ug/L
Lab Code:	J0805492-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	130	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-16C	**Units:**	ug/L
Lab Code:	J0805492-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	130	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-17A	**Units:**	ug/L
Lab Code:	J0805492-007	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	125	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-17B	**Units:**	ug/L
Lab Code:	J0805492-008	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	130	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-17C	**Units:**	ug/L
Lab Code:	J0805492-009	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	127	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name: DUP-2
Lab Code: J0805492-010

Units: ug/L
Basis: NA

Extraction Method: METHOD
Analysis Method: 8011

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	129	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project:	JED SWDF/FQ1512	**Date Collected:**	11/11/2008
Sample Matrix:	Water	**Date Received:**	11/12/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Equipment Blank	**Units:**	ug/L
Lab Code:	J0805492-011	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	126	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Collected: NA
Date Received: NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name: Method Blank
Lab Code: JWG0804358-4

Units: ug/L
Basis: NA

Extraction Method: METHOD
Analysis Method: 8011

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	132	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-20A
Lab Code: J0805492-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/21/2008	9.9	i
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	3.5	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.6	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	1.0	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/21/2008	888	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	1.5	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	1.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	6.2	
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	5	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-20B
Lab Code: J0805492-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	0.30	i
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/21/2008	119	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.3	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	9.6	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	1.6	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/21/2008	1670	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	8.3	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	1.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	12	
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	5	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-20C
Lab Code: J0805492-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	0.20	i
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/21/2008	87.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.2	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	0.12	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	4.1	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	0.5	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/21/2008	1820	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.7	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	0.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	4.9	i
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	5	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-16A
Lab Code: J0805492-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/21/2008	14.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	1.1	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	0.4	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/21/2008	185	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.2	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	0.5	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	6.2	
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	5	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-16B
Lab Code: J0805492-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/21/2008	55.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	2.6	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	0.5	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/21/2008	1610	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	3.6	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	0.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	3.6	i
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-16C
Lab Code: J0805492-006

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/21/2008	20.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	0.9	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/21/2008	1130	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	2.0	i
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-17A
Lab Code: J0805492-007

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	0.47	i
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/22/2008	22.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	0.12	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	1.6	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.5	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/22/2008	415	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	1.2	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	6.0	
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	4	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-17B
Lab Code: J0805492-008

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	0.22	i
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/22/2008	29.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	1.1	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	0.5	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/22/2008	1430	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	0.4	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	2.5	i
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	4	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: MW-17C
Lab Code: J0805492-009

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/22/2008	19.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	1.5	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/22/2008	1050	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	2.4	i
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: DUP-2
Lab Code: J0805492-010

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/22/2008	19.0	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	1.0	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/22/2008	1170	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	2.2	i
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	8	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Total Metals

Sample Name: Equipment Blank
Lab Code: J0805492-011

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/22/2008	U	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/19/2008	11/22/2008	7.8	i
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER		

Total Metals

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	MB7-1120	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/20/2008	11/29/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/20/2008	11/26/2008	U	
Barium	EPA 3010A	6010B	10.0	1.0	1.0	11/19/2008	11/21/2008	U	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/20/2008	11/26/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/20/2008	11/26/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/19/2008	11/21/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/20/2008	11/26/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/20/2008	11/26/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/20/2008	11/26/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/20/2008	11/26/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/20/2008	11/26/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/20/2008	11/26/2008	5	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER		

Total Metals
Sodium

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-20A	J0805492-001	0.50	0.02	1.0	11/19/2008	11/21/2008	9.1	
MW-20B	J0805492-002	0.50	0.02	1.0	11/19/2008	11/21/2008	16	
MW-20C	J0805492-003	0.50	0.02	1.0	11/19/2008	11/21/2008	9.6	
MW-16A	J0805492-004	0.50	0.02	1.0	11/19/2008	11/21/2008	3.1	
MW-16B	J0805492-005	0.50	0.02	1.0	11/19/2008	11/21/2008	8.4	
MW-16C	J0805492-006	0.50	0.02	1.0	11/19/2008	11/21/2008	12	
MW-17A	J0805492-007	0.50	0.02	1.0	11/19/2008	11/22/2008	5.8	
MW-17B	J0805492-008	0.50	0.02	1.0	11/19/2008	11/22/2008	12	
MW-17C	J0805492-009	0.50	0.02	1.0	11/19/2008	11/22/2008	12	
DUP-2	J0805492-010	0.50	0.02	1.0	11/19/2008	11/22/2008	12	
Equipment Blank	J0805492-011	0.50	0.02	1.0	11/19/2008	11/22/2008	U	
MB5-1119	MB5-1119	0.50	0.02	1.0	11/19/2008	11/21/2008	0.07	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Dissolved Metals

Sample Name: MW-20B
Lab Code: J0805492-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/20/2008	11/21/2008	0.9	i
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/20/2008	11/21/2008	0.33	i
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/20/2008	11/21/2008	12	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/20/2008	11/21/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/20/2008	11/21/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	0.4	i
Iron	EPA 3005A	6010B	50	4.0	1.0	11/13/2008	11/13/2008	1400	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	0.3	i
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/20/2008	11/21/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/20/2008	11/21/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/20/2008	11/21/2008	U	
Zinc	EPA 3005A	6020	10	4.0	1.0	11/20/2008	11/21/2008	12	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: 11/11/2008
Date Received: 11/12/2008

Dissolved Metals

Sample Name: MW-20C
Lab Code: J0805492-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/20/2008	11/21/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/20/2008	11/21/2008	U	
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/20/2008	11/21/2008	38	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/20/2008	11/21/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/20/2008	11/21/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Iron	EPA 3005A	6010B	50	4.0	1.0	11/13/2008	11/13/2008	1290	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/20/2008	11/21/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/20/2008	11/21/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/20/2008	11/21/2008	U	
Zinc	EPA 3005A	6020	10	4.0	1.0	11/20/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER		

Dissolved Metals

Sample Name:	MW-16B	**Units:**	ug/L
Lab Code:	J0805492-005	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/20/2008	11/21/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/20/2008	11/21/2008	0.20	i
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/20/2008	11/21/2008	19	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/20/2008	11/21/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/20/2008	11/21/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	0.3	i
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Iron	EPA 3005A	6010B	50	4.0	1.0	11/13/2008	11/13/2008	1400	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/20/2008	11/21/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/20/2008	11/21/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/20/2008	11/21/2008	U	
Zinc	EPA 3005A	6020	10	4.0	1.0	11/20/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805492
Date Collected: N/A
Date Received: N/A

Dissolved Metals

Sample Name: Method Blank
Lab Code: MB5-1120

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/20/2008	11/21/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/20/2008	11/21/2008	U	
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/20/2008	11/21/2008	U	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/20/2008	11/21/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/20/2008	11/21/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Iron	EPA 3005A	6010B	50.0	4.0	1.0	11/13/2008	11/13/2008	U	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/17/2008	11/17/2008	U	
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/20/2008	11/21/2008	U	
Silver	EPA 3005A	6020	0.5	0.1	1.0	11/20/2008	11/21/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/20/2008	11/21/2008	U	
Zinc	EPA 3005A	6020	10.0	4.0	1.0	11/20/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER		

Dissolved Metals
Sodium

Prep Method:	EPA 3005A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-20B	J0805492-002	0.50	0.02	1.0	11/13/2008	11/13/2008	16	
MW-20C	J0805492-003	0.50	0.02	1.0	11/13/2008	11/13/2008	9.4	
MW-16B	J0805492-005	0.50	0.02	1.0	11/13/2008	11/13/2008	8.2	
Method Blank	MB2-1113	0.50	0.02	1.0	11/13/2008	11/13/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-20A
Lab Code : J0805492-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.62	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	5.6	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 17:11	0.15	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/13/08 17:30	130	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-20B
Lab Code : J0805492-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.24	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	29	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 17:56	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/13/08 17:30	160	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-20C
Lab Code : J0805492-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.21	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	21	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 18:11	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	75	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-16A
Lab Code : J0805492-004
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.17	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	5.6	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 18:26	0.16	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	52	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-16B
Lab Code : J0805492-005
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.27	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	15	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 18:41	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	65	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-16C
Lab Code : J0805492-006
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.15	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	21	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 19:41	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	67	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-17A
Lab Code : J0805492-007
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.30	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	9.6	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 19:56	0.17	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	52	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-17B
Lab Code : J0805492-008
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.20	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	29	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 20:11	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	65	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : MW-17C
Lab Code : J0805492-009
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.20	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	18	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 20:26	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	78	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : DUP-2
Lab Code : J0805492-010
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.14	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	21	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 20:56	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	41	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08

Inorganic Parameters

Sample Name : Equipment Blank
Lab Code : J0805492-011
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 20:56	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805492-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/12/08 16:12	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/12/08 16:12	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/14/08 16:40	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/13/08 17:30	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
MW-20A	J0805492-001	97	98	96	96
MW-20B	J0805492-002	99	96	96	97
MW-20C	J0805492-003	97	94	93	94
MW-16A	J0805492-004	99	98	93	98
MW-16B	J0805492-005	100	94	97	92
MW-16C	J0805492-006	96	93	96	98
MW-17A	J0805492-007	103	94	100	98
MW-17B	J0805492-008	101	96	94	92
MW-17C	J0805492-009	104	98	101	99
DUP-2	J0805492-010	97	94	100	96
Equipment Blank	J0805492-011	102	93	96	98
Trip Blank	J0805492-012	103	94	97	97
Method Blank	JWG0804376-4	101	92	96	97
Lab Control Sample	JWG0804376-3	96	95	96	97

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Extracted: 11/15/2008
Date Analyzed: 11/15/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804376

	Lab Control Sample JWG0804376-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Chloromethane	19.5	20.0	98	67-135
Vinyl Chloride	20.7	20.0	103	78-132
Bromomethane	19.8	20.0	99	79-130
Chloroethane	16.9	20.0	84	74-126
Trichlorofluoromethane	22.3	20.0	111	74-134
1,1-Dichloroethene	20.5	20.0	102	78-130
Acetone	108	100	108	67-133
Iodomethane (Methyl Iodide)	98.3	100	98	68-134
Carbon Disulfide	112	100	112	76-138
Methylene Chloride	19.6	20.0	98	72-124
trans-1,2-Dichloroethene	20.8	20.0	104	77-124
Acrylonitrile	107	100	107	77-127
1,1-Dichloroethane	19.5	20.0	97	80-128
Vinyl Acetate	109	100	109	61-148
cis-1,2-Dichloroethene	19.6	20.0	98	80-126
2-Butanone (MEK)	111	100	111	73-127
Bromochloromethane	20.6	20.0	103	79-129
Chloroform	18.9	20.0	94	83-124
1,1,1-Trichloroethane (TCA)	20.8	20.0	104	79-124
Carbon Tetrachloride	20.4	20.0	102	81-125
Benzene	19.2	20.0	96	79-119
1,2-Dichloroethane (EDC)	20.4	20.0	102	80-124
Trichloroethene (TCE)	19.7	20.0	98	76-124
1,2-Dichloropropane	19.9	20.0	99	79-123
Dibromomethane	20.4	20.0	102	83-123
Bromodichloromethane	18.6	20.0	93	81-123
cis-1,3-Dichloropropene	19.2	20.0	96	86-123
4-Methyl-2-pentanone (MIBK)	114	100	114	72-136
Toluene	20.1	20.0	100	86-117
trans-1,3-Dichloropropene	19.0	20.0	95	83-124
1,1,2-Trichloroethane	18.9	20.0	95	86-114
Tetrachloroethene (PCE)	18.4	20.0	92	80-121
2-Hexanone	110	100	110	71-138
Dibromochloromethane	18.3	20.0	91	82-121
1,2-Dibromoethane (EDB)	19.3	20.0	96	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Extracted: 11/15/2008
Date Analyzed: 11/15/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804376

	Lab Control Sample JWG0804376-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Chlorobenzene	19.0	20.0	95	86-113
1,1,1,2-Tetrachloroethane	19.6	20.0	98	85-117
Ethylbenzene	19.6	20.0	98	90-118
m,p-Xylenes	40.1	40.0	100	86-121
o-Xylene	19.7	20.0	98	89-119
Styrene	19.9	20.0	99	89-122
Bromoform	17.8	20.0	89	68-129
1,1,2,2-Tetrachloroethane	21.0	20.0	105	83-120
1,2,3-Trichloropropane	20.8	20.0	104	83-123
1,4-Dichlorobenzene	19.9	20.0	99	83-113
trans-1,4-Dichloro-2-butene	17.1	20.0	86	53-143
1,2-Dichlorobenzene	21.2	20.0	106	84-115
1,2-Dibromo-3-chloropropane (DBCP	22.1	20.0	110	62-123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
MW-20A	J0805492-001	128
MW-20B	J0805492-002	133
MW-20C	J0805492-003	117
MW-16A	J0805492-004	132
MW-16B	J0805492-005	130
MW-16C	J0805492-006	130
MW-17A	J0805492-007	125
MW-17B	J0805492-008	130
MW-17C	J0805492-009	127
DUP-2	J0805492-010	129
Equipment Blank	J0805492-011	126
Method Blank	JWG0804358-4	132
Lab Control Sample	JWG0804358-3	131

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805492
Date Extracted: 11/16/2008
Date Analyzed: 11/18/2008

Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804358

	Lab Control Sample JWG0804358-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
1,2-Dibromoethane (EDB)	0.322	0.250	129	70-130
1,2-Dibromo-3-chloropropane (DBCP	0.303	0.250	121	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER	**Date Extracted:**	11/19/2008
		Date Analyzed:	11/21/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-20B		**Units:**	ug/L
Lab Code:	J0805492-002	J0805492-002S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Barium	EPA 3010	6010B	10.0	4000	4000	119.0	4070.0	4140.0	99	101	2	75 - 125	
Iron	EPA 3010	6010B	50	2000	2000	1670	3620	3670	98	100	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/20/2008
		Date Analyzed:	11/29/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS7-1120	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	53.9	108	80 - 120	
Arsenic	EPA 3020A	6020	50.0	45.0	90	80 - 120	
Barium	EPA 3010A	6010B	4000	3960	99	80 - 120	
Beryllium	EPA 3020A	6020	50.0	42.9	86	80 - 120	
Cadmium	EPA 3020A	6020	50.0	44.7	89	80 - 120	
Chromium	EPA 3020A	6020	50.0	47.5	95	80 - 120	
Cobalt	EPA 3020A	6020	50.0	47.3	95	80 - 120	
Copper	EPA 3020A	6020	50.0	46.9	94	80 - 120	
Iron	EPA 3010A	6010B	2000	1900	95	80 - 120	
Lead	EPA 3020A	6020	50.0	47.1	94	80 - 120	
Mercury	METHOD	7470A	5.00	4.81	96	80 - 120	
Nickel	EPA 3020A	6020	50.0	47.4	95	80 - 120	
Selenium	EPA 3020A	6020	50.0	43.4	87	80 - 120	
Silver	EPA 3020A	6020	50.0	46.9	94	80 - 120	
Thallium	EPA 3020A	6020	50.0	46.8	94	80 - 120	
Vanadium	EPA 3020A	6020	50.0	47.1	94	80 - 120	
Zinc	EPA 3020A	6020	100	89.9	90	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER	**Date Extracted:**	11/19/2008
		Date Analyzed:	11/21/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-20B		**Units:**	mg/L
Lab Code:	J0805492-002	J0805492-002S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Sodium	EPA 3010	6010B	0.5	10.0	10.0	16.1	25.7	25.9	96	98	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/19/2008
		Date Analyzed:	11/21/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	LCS5-1119	**Units:**	mg/L
Lab Code:	LCS5-1119	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	10.0	100	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/13/2008

Matrix Spike/Matrix Spike Duplicate Summary
Dissolved Metals

Sample Name:	MW-20B		**Units:**	ug/L
Lab Code:	J0805492-002	J0805492-002S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Iron	EPA 3005	6010B	50	2000	2000	1400	3500	3230	105	92	8	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER	**Date Extracted:**	11/20/2008
		Date Analyzed:	11/21/2008

Matrix Spike/Matrix Spike Duplicate Summary
Dissolved Metals

Sample Name:	MW-20C		**Units:**	ug/L
Lab Code:	J0805492-003	J0805492-003S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Antimony	EPA 3005	6020	2.0	50.0	50.0	U	49.5	51.3	99	103	4	75 - 125	
Arsenic	EPA 3005	6020	0.5	50.0	50.0	U	48.9	50.9	98	102	4	75 - 125	
Barium	EPA 3005	6020	2.0	50.0	50.0	38.4	84.7	86.6	93	96	2	75 - 125	
Beryllium	EPA 3005	6020	1.0	50.0	50.0	U	48.4	50.5	97	101	4	75 - 125	
Cadmium	EPA 3005	6020	0.5	50.0	50.0	U	47.9	49.7	96	99	4	75 - 125	
Chromium	EPA 3005	6020	2.0	50.0	50.0	U	47.2	48.2	94	96	2	75 - 125	
Cobalt	EPA 3005	6020	1.0	50.0	50.0	U	46.8	48.7	94	97	4	75 - 125	
Copper	EPA 3005	6020	2.0	50.0	50.0	U	46.3	48.3	93	97	4	75 - 125	
Lead	EPA 3005	6020	1.0	50.0	50.0	U	48.4	48.9	97	98	1	75 - 125	
Nickel	EPA 3005	6020	2.0	50.0	50.0	U	46.9	48.2	94	96	3	75 - 125	
Selenium	EPA 3005	6020	2.0	50.0	50.0	U	48.7	50.3	97	101	3	75 - 125	
Silver	EPA 3005	6020	0.5	50.0	50.0	U	49.4	51.7	99	103	5	75 - 125	
Thallium	EPA 3005	6020	1.0	50.0	50.0	U	46.9	48.3	94	97	3	75 - 125	
Vanadium	EPA 3005	6020	5.0	50.0	50.0	U	47.7	49.4	95	99	4	75 - 125	
Zinc	EPA 3005	6020	10.0	100	100	U	99.1	102.0	99	102	3	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/20/2008
		Date Analyzed:	11/21/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS5-1120	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3005A	6020	50.0	50.5	101	80 - 120	
Arsenic	EPA 3005A	6020	50.0	49.2	98	80 - 120	
Barium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Beryllium	EPA 3005A	6020	50.0	47.2	94	80 - 120	
Cadmium	EPA 3005A	6020	50.0	47.2	94	80 - 120	
Chromium	EPA 3005A	6020	50.0	47.8	96	80 - 120	
Cobalt	EPA 3005A	6020	50.0	48.0	96	80 - 120	
Copper	EPA 3005A	6020	50.0	47.6	95	80 - 120	
Iron	EPA 3005A	6010B	2000	2010	100	80 - 120	
Lead	EPA 3005A	6020	50.0	48.4	97	80 - 120	
Mercury	METHOD	7470A	5.00	4.81	96	80 - 120	
Nickel	EPA 3005A	6020	50.0	48.4	97	80 - 120	
Selenium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Silver	EPA 3005A	6020	50.0	51.4	103	80 - 120	
Thallium	EPA 3005A	6020	50.0	47.6	95	80 - 120	
Vanadium	EPA 3005A	6020	50.0	47.9	96	80 - 120	
Zinc	EPA 3005A	6020	100	101.0	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	11/11/2008
Project Number:	FQ1512	**Date Received:**	11/12/2008
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/13/2008

Matrix Spike/Matrix Spike Duplicate Summary
Dissolved Metals

Sample Name:	MW-20B		**Units:**	mg/L
Lab Code:	J0805492-002	J0805492-002S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Sodium	EPA 3005	6010B	0.5	10.0	10.0	16.2	25.6	25.3	94	91	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805492
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/13/2008
		Date Analyzed:	11/13/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS2-1113	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3005A	6010B	10.0	10.1	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08
Date Extracted : NA
Date Analyzed : 11/12/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-20A
Lab Code : J0805492-001DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	5.6	5.7	5.65	2	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.15	0.15	0.15	<1	i

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08
Date Extracted : NA
Date Analyzed : 11/12/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-20A
Lab Code : J0805492-001MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	100	5.6	108	102	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	0.15	5.58	109	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08
Date Extracted : NA
Date Analyzed : 11/17/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-16A
Lab Code : J0805492-004DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.17	0.17	0.17	<1	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08
Date Extracted : NA
Date Analyzed : 11/17/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-16A
Lab Code : J0805492-004MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	5.00	0.17	5.38	104	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08
Date Extracted : NA
Date Analyzed : 11/12/08

Duplicate Summary
Inorganic Parameters

Sample Name : DUP-2
Lab Code : J0805492-010DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	21	21	21	<1	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805492
Date Collected : 11/11/08
Date Received : 11/12/08
Date Extracted : NA
Date Analyzed : 11/12/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : DUP-2
Lab Code : J0805492-010MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Chloride	mg/L (ppm)	300.0	0.2	100	21	123	102	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.39	108	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805492
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/12-17/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805492-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.22	104	90-110	
Chloride	mg/L (ppm)	300.0	100	103	103	90-110	
Chloride	mg/L (ppm)	300.0	5.00	5.40	108	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.27	105	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	295	98	85-115	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	282	94	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec Service Request # J0805492

Project: SED SWDF

Cooler received on 11/12/08 and opened on 11/12/08 by TDK

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	1.1 2.3		
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date: 96

SR #: J0805492 Date: 11/12/08 Initials: JDK

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
-001	2	3					1	1	1																					
-002	3	3					1	2	1																					
-003	3	3					1	2	1																					
-004	3	3					1	1	1																					
-005	3	3					1	2	1																					
-006	3	3					1	1	1																					
-007	3	3					1	1	1																					
-008	3	3					1	1	1																					
-009	3	3					1	1	1																					
-010	3	3					1	1	1																					
-011	3	3					1	1	1																					
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-040																														

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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PAGE 1 OF 2

SR # J0805492
CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riverdge Dr. Ste-300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and [redacted]

PRESERVATIVE: 1 0 3 2 0 2

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH3	Metals	TDS, Cl, NO3	Dissolved Metals									REMARKS/ ALTERNATE DESCRIPTION
MW-20A		11.11.08	1005	GW	8	X	X	X	X	X										
MW-20B			0935		10						X									
MW-20C			0910		10						X									
MW-16A			1250		9															
MW-16B			1230		10						X									
MW-16C			1150		9															
MW-17A			1425		9															
MW-17B			1415		9															
MW-17C			1450		9															
DUP-2					9															

0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

COC for contents of 2 coolers

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Tom D. Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom D. Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-11-08 / 1600	Date/Time: 11/12/08 ~~900~~ 945 TDK	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

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PAGE 2 OF 2

SR # J0805492
CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste. 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and [redacted]

PRESERVATIVE: 1 0 3 2 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH3	Metals	TDS, Cl, NO3	REMARKS/ ALTERNATE DESCRIPTION
Equipment Blank		11-11-08	0730	W	9	X	X	X	X	X	
Trip Blank				W	3	X					

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Tom D Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom D Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-11-08/1600	Date/Time: 11/12/08 945	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

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December 01, 2008

Service Request No: J0805543

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 13, 2008. For your reference, these analyses have been assigned our service request number **J0805543**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805543
Project:	JED SWDF	**Date Received:**	11/13/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Two water samples and two trip blanks were received for analysis at Columbia Analytical Services on 11/13/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analytes in Second Source Verification (SSV) CAL1659: Ethyl Methacrylate and trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Lab Control Sample Exceptions

The spike recovery of Dichlorodifluoromethane for Laboratory Control Sample (LCS) JWG0804378-3 was outside the lower control criterion. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

The spike recovery of Naphthalene for Laboratory Control Sample (LCS) JWG02804378-3 was outside the upper control criterion. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Elevated Method Reporting Limits

The reporting limits are elevated for all analytes in samples L-2 and L-3. The samples were diluted prior to instrumental analysis due to the foaming nature of the matrix. The reporting limits are adjusted to reflect the dilution.

Approved by Clay R Hy **Date** 12/1/08

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Organochlorine Pesticides by GC-ECD

The samples were analyzed for Organochlorine Pesticides using EPA Method 8081. The following observations were made regarding this delivery group.

Surrogate Exceptions

The control criterion was exceeded for the following surrogates in sample L-2 due to suspected matrix interferences: Decachlorobiphenyl and Tetrachloro-m-xylene. The sample formed an emulsion during the extraction procedure, preventing adequate recovery of the surrogates. No further corrective action was appropriate.

PCB Aroclors by GC-ECD

The samples were analyzed for PCB Aroclors using EPA Method 8082. The following observations were made regarding this delivery group.

Surrogate Exceptions

The control criterion was exceeded for the following surrogate in sample L-2 due to suspected matrix interferences: Decachlorobiphenyl. The sample formed an emulsion during the extraction procedure, preventing adequate recovery of the surrogate. No further corrective action was appropriate.

Semivolatile Organics by GC-MS

The samples were analyzed for Semivolatile Organics using EPA Method 8270. The following observations were made regarding this delivery group.

Second Source Exceptions

The control criterion was exceeded for the following analytes in Second Source Verification (SSV) CAL1652: 2-Methyl-4,6-dinitrophenol and 3,3'-Dimethylbenzidine. The field samples analyzed in this sequence did not contain the analytes in question. Since the analytes were detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

Lab Control Sample Exceptions

The spike recovery of Benzo(b)fluoranthene for Laboratory Control Sample (LCS) JWG0804427-2 was outside the lower control criterion. The analyte in question was not detected in the associated field sample. The error associated with reduced recovery equates to a potential low bias. Since the analyte was detected in the MRL check standard,

Approved by Craig R Hy **Date** 12/1/08

instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Batch QC Notes and Discussion

Quality control samples (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. No problems were observed.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Subcontracted Analytical Parameters

The samples were delivered to ENCO Labs in Jacksonville, FL on 11/14/08 for EPA Method 8151 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

Approved by Craig R Mu **Date** 12/1/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805543

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805543-001	L-2	11/12/08	13:20
J0805543-002	Trip Blank	11/12/08	00:00
J0805543-003	L-3	11/12/08	14:40
J0805543-004	Trip Blank	11/12/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-2
Lab Code: J0805543-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	10	1.0	10	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	10	2.1	10	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	10	1.5	10	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	10	2.1	10	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	10	5.6	10	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	10	1.6	10	11/14/08	11/14/08	JWG0804378	
1,1-Dichloropropene	ND	U	50	1.3	10	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	20	1.6	10	11/14/08	11/14/08	JWG0804378	
1,2,4-Trichlorobenzene	ND	U	100	3.0	10	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	50	2.6	10	11/14/08	11/14/08	JWG0804378	
1,2-Dibromoethane (EDB)	ND	U	10	1.8	10	11/14/08	11/14/08	JWG0804378	
1,2-Dichlorobenzene	ND	U	10	1.7	10	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	10	1.5	10	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	10	0.57	10	11/14/08	11/14/08	JWG0804378	
1,3-Dichlorobenzene	ND	U	10	1.4	10	11/14/08	11/14/08	JWG0804378	
1,3-Dichloropropane	ND	U	10	1.0	10	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	**5.7**	I	10	1.4	10	11/14/08	11/14/08	JWG0804378	
2,2-Dichloropropane	ND	U	10	2.2	10	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	**360**		100	5.6	10	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	250	3.6	10	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	**28**	I	250	3.7	10	11/14/08	11/14/08	JWG0804378	
Acetone	**300**	I	500	24	10	11/14/08	11/14/08	JWG0804378	
Acetonitrile	ND	U	250	33	10	11/14/08	11/14/08	JWG0804378	
Acrolein	ND	U	500	96	10	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	100	5.9	10	11/14/08	11/14/08	JWG0804378	
Allyl Chloride	ND	U	50	1.3	10	11/14/08	11/14/08	JWG0804378	
Benzene	**11**		10	5.2	10	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	50	1.4	10	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	10	1.0	10	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	20	1.2	10	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	10	1.4	10	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	100	8.4	10	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	10	1.8	10	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-2
Lab Code: J0805543-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chlorobenzene	ND	U	10	1.5	10	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	50	1.9	10	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	10	1.0	10	11/14/08	11/14/08	JWG0804378	
Chloromethane	ND	U	10	1.7	10	11/14/08	11/14/08	JWG0804378	
Chloroprene	ND	U	10	2.4	10	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	10	1.2	10	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	10	1.2	10	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	10	1.1	10	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	50	1.2	10	11/14/08	11/14/08	JWG0804378	
Dichlorodifluoromethane	ND	UJ	200	2.3	10	11/14/08	11/14/08	JWG0804378	J(3)
Ethyl Methacrylate	ND	UJ	10	1.4	10	11/14/08	11/14/08	JWG0804378	J(3)
Ethylbenzene	**38**		10	1.0	10	11/14/08	11/14/08	JWG0804378	
Hexachlorobutadiene	ND	U	100	6.1	10	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	50	25	10	11/14/08	11/14/08	JWG0804378	
Isobutyl Alcohol	ND	U	1000	46	10	11/14/08	11/14/08	JWG0804378	
Methacrylonitrile	ND	U	50	2.0	10	11/14/08	11/14/08	JWG0804378	
Methyl Methacrylate	ND	U	10	2.1	10	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	50	7.2	10	11/14/08	11/14/08	JWG0804378	
Naphthalene	ND	UJ	100	2.5	10	11/14/08	11/14/08	JWG0804378	J(3)
m,p-Xylenes	**40**		20	2.2	10	11/14/08	11/14/08	JWG0804378	
o-Xylene	**23**		10	1.0	10	11/14/08	11/14/08	JWG0804378	
Propionitrile	ND	U	250	8.7	10	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	10	0.51	10	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	10	2.2	10	11/14/08	11/14/08	JWG0804378	
Toluene	**48**		10	5.2	10	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	10	1.3	10	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	10	1.2	10	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	200	11	10	11/14/08	11/14/08	JWG0804378	J(3)
Trichloroethene (TCE)	ND	U	10	1.5	10	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	200	2.5	10	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	100	6.0	10	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	10	2.5	10	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-2
Lab Code: J0805543-001

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	97	75-120	11/14/08	Acceptable
Dibromofluoromethane	96	82-116	11/14/08	Acceptable
Toluene-d8	97	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
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Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Trip Blank
Lab Code: J0805543-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloropropene	ND	U	5.0	0.13	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,2,4-Trichlorobenzene	ND	U	10	0.30	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
1,3-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
1,3-Dichloropropane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
2,2-Dichloropropane	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Acetonitrile	ND	U	25	3.3	1	11/14/08	11/14/08	JWG0804378	
Acrolein	ND	U	50	9.6	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
Allyl Chloride	ND	U	5.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Trip Blank
Lab Code: J0805543-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Chloroprene	ND	U	1.0	0.24	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Dichlorodifluoromethane	ND	UJ	20	0.23	1	11/14/08	11/14/08	JWG0804378	J(3)
Ethyl Methacrylate	ND	UJ	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	J(3)
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Hexachlorobutadiene	ND	U	10	0.61	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Isobutyl Alcohol	ND	U	100	4.6	1	11/14/08	11/14/08	JWG0804378	
Methacrylonitrile	ND	U	5.0	0.20	1	11/14/08	11/14/08	JWG0804378	
Methyl Methacrylate	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
Naphthalene	ND	UJ	10	0.25	1	11/14/08	11/14/08	JWG0804378	J(3)
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Propionitrile	ND	U	25	0.87	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	J0805543-002	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	97	75-120	11/14/08	Acceptable
Dibromofluoromethane	97	82-116	11/14/08	Acceptable
Toluene-d8	100	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-3
Lab Code: J0805543-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	20	2.0	20	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	20	4.2	20	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	20	3.0	20	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	20	4.2	20	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	20	12	20	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	20	3.2	20	11/14/08	11/14/08	JWG0804378	
1,1-Dichloropropene	ND	U	100	2.6	20	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	40	3.2	20	11/14/08	11/14/08	JWG0804378	
1,2,4-Trichlorobenzene	ND	U	200	6.0	20	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	100	5.2	20	11/14/08	11/14/08	JWG0804378	
1,2-Dibromoethane (EDB)	ND	U	20	3.6	20	11/14/08	11/14/08	JWG0804378	
1,2-Dichlorobenzene	ND	U	20	3.4	20	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	20	3.0	20	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	20	1.2	20	11/14/08	11/14/08	JWG0804378	
1,3-Dichlorobenzene	ND	U	20	2.8	20	11/14/08	11/14/08	JWG0804378	
1,3-Dichloropropane	ND	U	20	2.0	20	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	20	2.8	20	11/14/08	11/14/08	JWG0804378	
2,2-Dichloropropane	ND	U	20	4.4	20	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	**580**		200	12	20	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	500	7.2	20	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	500	7.4	20	11/14/08	11/14/08	JWG0804378	
Acetone	**420**	I	1000	48	20	11/14/08	11/14/08	JWG0804378	
Acetonitrile	ND	U	500	66	20	11/14/08	11/14/08	JWG0804378	
Acrolein	ND	U	1000	200	20	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	200	12	20	11/14/08	11/14/08	JWG0804378	
Allyl Chloride	ND	U	100	2.6	20	11/14/08	11/14/08	JWG0804378	
Benzene	**12**	I	20	11	20	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	100	2.8	20	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	20	2.0	20	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	40	2.4	20	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	20	2.8	20	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	200	17	20	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	20	3.6	20	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-3
Lab Code: J0805543-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chlorobenzene	ND	U	20	3.0	20	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	100	3.8	20	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	20	2.0	20	11/14/08	11/14/08	JWG0804378	
Chloromethane	ND	U	20	3.4	20	11/14/08	11/14/08	JWG0804378	
Chloroprene	ND	U	20	4.8	20	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	20	2.4	20	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	20	2.4	20	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	20	2.2	20	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	100	2.4	20	11/14/08	11/14/08	JWG0804378	
Dichlorodifluoromethane	ND	UJ	400	4.6	20	11/14/08	11/14/08	JWG0804378	J(3)
Ethyl Methacrylate	ND	UJ	20	2.8	20	11/14/08	11/14/08	JWG0804378	J(3)
Ethylbenzene	**30**		20	2.0	20	11/14/08	11/14/08	JWG0804378	
Hexachlorobutadiene	ND	U	200	13	20	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	100	50	20	11/14/08	11/14/08	JWG0804378	
Isobutyl Alcohol	ND	U	2000	92	20	11/14/08	11/14/08	JWG0804378	
Methacrylonitrile	ND	U	100	4.0	20	11/14/08	11/14/08	JWG0804378	
Methyl Methacrylate	ND	U	20	4.2	20	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	100	15	20	11/14/08	11/14/08	JWG0804378	
Naphthalene	ND	UJ	200	5.0	20	11/14/08	11/14/08	JWG0804378	J(3)
m,p-Xylenes	**35**	I	40	4.4	20	11/14/08	11/14/08	JWG0804378	
o-Xylene	**16**	I	20	2.0	20	11/14/08	11/14/08	JWG0804378	
Propionitrile	ND	U	500	18	20	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	20	1.1	20	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	20	4.4	20	11/14/08	11/14/08	JWG0804378	
Toluene	**54**		20	11	20	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	20	2.6	20	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	20	2.4	20	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	400	22	20	11/14/08	11/14/08	JWG0804378	J(3)
Trichloroethene (TCE)	ND	U	20	3.0	20	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	400	5.0	20	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	200	12	20	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	20	5.0	20	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-3	**Units:**	ug/L
Lab Code:	J0805543-003	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	103	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	97	75-120	11/14/08	Acceptable
Dibromofluoromethane	100	82-116	11/14/08	Acceptable
Toluene-d8	95	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Trip Blank
Lab Code: J0805543-004

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloropropene	ND	U	5.0	0.13	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,2,4-Trichlorobenzene	ND	U	10	0.30	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
1,3-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
1,3-Dichloropropane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
2,2-Dichloropropane	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Acetonitrile	ND	U	25	3.3	1	11/14/08	11/14/08	JWG0804378	
Acrolein	ND	U	50	9.6	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
Allyl Chloride	ND	U	5.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Trip Blank
Lab Code: J0805543-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Chloroprene	ND	U	1.0	0.24	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Dichlorodifluoromethane	ND	UJ	20	0.23	1	11/14/08	11/14/08	JWG0804378	J(3)
Ethyl Methacrylate	ND	UJ	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	J(3)
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Hexachlorobutadiene	ND	U	10	0.61	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Isobutyl Alcohol	ND	U	100	4.6	1	11/14/08	11/14/08	JWG0804378	
Methacrylonitrile	ND	U	5.0	0.20	1	11/14/08	11/14/08	JWG0804378	
Methyl Methacrylate	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
Naphthalene	ND	UJ	10	0.25	1	11/14/08	11/14/08	JWG0804378	J(3)
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Propionitrile	ND	U	25	0.87	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	J0805543-004	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	102	75-120	11/14/08	Acceptable
Dibromofluoromethane	96	82-116	11/14/08	Acceptable
Toluene-d8	99	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804378-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,1-Dichloropropene	ND	U	5.0	0.13	1	11/14/08	11/14/08	JWG0804378	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/14/08	11/14/08	JWG0804378	
1,2,4-Trichlorobenzene	ND	U	10	0.30	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/14/08	11/14/08	JWG0804378	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/14/08	11/14/08	JWG0804378	
1,3-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
1,3-Dichloropropane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
2,2-Dichloropropane	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
2-Butanone (MEK)	ND	U	10	0.56	1	11/14/08	11/14/08	JWG0804378	
2-Hexanone	ND	U	25	0.36	1	11/14/08	11/14/08	JWG0804378	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/14/08	11/14/08	JWG0804378	
Acetone	ND	U	50	2.4	1	11/14/08	11/14/08	JWG0804378	
Acetonitrile	ND	U	25	3.3	1	11/14/08	11/14/08	JWG0804378	
Acrolein	ND	U	50	9.6	1	11/14/08	11/14/08	JWG0804378	
Acrylonitrile	ND	U	10	0.59	1	11/14/08	11/14/08	JWG0804378	
Allyl Chloride	ND	U	5.0	0.13	1	11/14/08	11/14/08	JWG0804378	
Benzene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
Bromochloromethane	ND	U	5.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Bromodichloromethane	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Bromoform	ND	U	2.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Bromomethane	ND	U	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	
Carbon Disulfide	ND	U	10	0.84	1	11/14/08	11/14/08	JWG0804378	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804378-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chlorobenzene	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Chloroethane	ND	U	5.0	0.19	1	11/14/08	11/14/08	JWG0804378	
Chloroform	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Chloromethane	ND	U	1.0	0.17	1	11/14/08	11/14/08	JWG0804378	
Chloroprene	ND	U	1.0	0.24	1	11/14/08	11/14/08	JWG0804378	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Dibromochloromethane	ND	U	1.0	0.11	1	11/14/08	11/14/08	JWG0804378	
Dibromomethane	ND	U	5.0	0.12	1	11/14/08	11/14/08	JWG0804378	
Dichlorodifluoromethane	ND	UJ	20	0.23	1	11/14/08	11/14/08	JWG0804378	J(3)
Ethyl Methacrylate	ND	UJ	1.0	0.14	1	11/14/08	11/14/08	JWG0804378	J(3)
Ethylbenzene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Hexachlorobutadiene	ND	U	10	0.61	1	11/14/08	11/14/08	JWG0804378	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/14/08	11/14/08	JWG0804378	
Isobutyl Alcohol	ND	U	100	4.6	1	11/14/08	11/14/08	JWG0804378	
Methacrylonitrile	ND	U	5.0	0.20	1	11/14/08	11/14/08	JWG0804378	
Methyl Methacrylate	ND	U	1.0	0.21	1	11/14/08	11/14/08	JWG0804378	
Methylene Chloride	ND	U	5.0	0.72	1	11/14/08	11/14/08	JWG0804378	
Naphthalene	ND	UJ	10	0.25	1	11/14/08	11/14/08	JWG0804378	J(3)
m,p-Xylenes	ND	U	2.0	0.22	1	11/14/08	11/14/08	JWG0804378	
o-Xylene	ND	U	1.0	0.10	1	11/14/08	11/14/08	JWG0804378	
Propionitrile	ND	U	25	0.87	1	11/14/08	11/14/08	JWG0804378	
Styrene	ND	U	1.0	0.051	1	11/14/08	11/14/08	JWG0804378	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/14/08	11/14/08	JWG0804378	
Toluene	ND	U	1.0	0.52	1	11/14/08	11/14/08	JWG0804378	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/14/08	11/14/08	JWG0804378	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/14/08	11/14/08	JWG0804378	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/14/08	11/14/08	JWG0804378	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/14/08	11/14/08	JWG0804378	
Trichlorofluoromethane	ND	U	20	0.25	1	11/14/08	11/14/08	JWG0804378	
Vinyl Acetate	ND	U	10	0.60	1	11/14/08	11/14/08	JWG0804378	
Vinyl Chloride	ND	U	1.0	0.25	1	11/14/08	11/14/08	JWG0804378	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804378-4

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/14/08	Acceptable
4-Bromofluorobenzene	96	75-120	11/14/08	Acceptable
Dibromofluoromethane	96	82-116	11/14/08	Acceptable
Toluene-d8	96	88-117	11/14/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	L-2	**Units:**	ug/L
Lab Code:	J0805543-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	117	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	L-3	**Units:**	ug/L
Lab Code:	J0805543-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	111	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804358-4	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	132	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-2	**Units:**	ug/L
Lab Code:	J0805543-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	5.6	0.82	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosomethylethylamine	ND	U	5.6	0.92	1	11/18/08	11/20/08	JWG0804427	
Methyl Methanesulfonate	ND	U	5.6	0.63	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosodiethylamine	ND	U	5.6	0.70	1	11/18/08	11/20/08	JWG0804427	
Ethyl Methanesulfonate	ND	U	5.6	0.73	1	11/18/08	11/20/08	JWG0804427	
Phenol	ND	U	5.6	0.47	1	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroethyl) Ether	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
2-Chlorophenol	ND	U	5.6	0.84	1	11/18/08	11/20/08	JWG0804427	
1,3-Dichlorobenzene	ND	U	5.6	0.78	1	11/18/08	11/20/08	JWG0804427	
1,4-Dichlorobenzene	ND	U	5.6	1.4	1	11/18/08	11/20/08	JWG0804427	
1,2-Dichlorobenzene	ND	U	5.6	0.83	1	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroisopropyl) Ether	ND	U	5.6	0.64	1	11/18/08	11/20/08	JWG0804427	
Benzyl alcohol	ND	U	5.6	0.77	1	11/18/08	11/20/08	JWG0804427	
2-Methylphenol	ND	U	5.6	0.72	1	11/18/08	11/20/08	JWG0804427	
Acetophenone	ND	U	12	1.5	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosopyrrolidine	ND	U	5.6	0.78	1	11/18/08	11/20/08	JWG0804427	
Hexachloroethane	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosodi-n-propylamine	ND	U	5.6	0.76	1	11/18/08	11/20/08	JWG0804427	
o-Toluidine	ND	U	5.6	0.99	1	11/18/08	11/20/08	JWG0804427	
4-Methylphenol†	ND	U	5.6	0.86	1	11/18/08	11/20/08	JWG0804427	
Nitrobenzene	ND	U	5.6	0.82	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosopiperidine	ND	U	5.6	1.8	1	11/18/08	11/20/08	JWG0804427	
Isophorone	ND	U	5.6	0.89	1	11/18/08	11/20/08	JWG0804427	
2-Nitrophenol	ND	U	23	0.67	1	11/18/08	11/20/08	JWG0804427	
2,4-Dimethylphenol	ND	U	5.6	0.88	1	11/18/08	11/20/08	JWG0804427	
O,O,O-Triethyl Phosphorothioate	ND	U	23	0.58	1	11/18/08	11/20/08	JWG0804427	
bis(2-Chloroethoxy)methane	**13**		5.6	0.99	1	11/18/08	11/20/08	JWG0804427	
2,4-Dichlorophenol	ND	U	5.6	0.56	1	11/18/08	11/20/08	JWG0804427	
1,2,4-Trichlorobenzene	ND	U	5.6	0.87	1	11/18/08	11/20/08	JWG0804427	
Naphthalene	ND	U	5.6	0.88	1	11/18/08	11/20/08	JWG0804427	
2,6-Dichlorophenol	ND	U	12	0.80	1	11/18/08	11/20/08	JWG0804427	
Hexachloropropene	ND	U	5.6	2.2	1	11/18/08	11/20/08	JWG0804427	
4-Chloroaniline	ND	U	5.6	0.59	1	11/18/08	11/20/08	JWG0804427	
Hexachlorobutadiene	ND	U	5.6	0.68	1	11/18/08	11/20/08	JWG0804427	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-2
Lab Code: J0805543-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodi-n-butylamine	ND	U	5.6	0.75	1	11/18/08	11/20/08	JWG0804427	
p-Phenylenediamine	ND	U	23	1.3	1	11/18/08	11/20/08	JWG0804427	
4-Chloro-3-methylphenol	ND	U	5.6	0.84	1	11/18/08	11/20/08	JWG0804427	
2-Methylnaphthalene	ND	U	5.6	0.83	1	11/18/08	11/20/08	JWG0804427	
Hexachlorocyclopentadiene	ND	U	5.6	0.46	1	11/18/08	11/20/08	JWG0804427	
1,2,4,5-Tetrachlorobenzene	ND	U	5.6	0.62	1	11/18/08	11/20/08	JWG0804427	
Safrole	ND	U	5.6	0.79	1	11/18/08	11/20/08	JWG0804427	
2,4,6-Trichlorophenol	ND	U	5.6	0.82	1	11/18/08	11/20/08	JWG0804427	
2,4,5-Trichlorophenol	ND	U	5.6	0.73	1	11/18/08	11/20/08	JWG0804427	
Isosafrole	ND	U	5.6	0.84	1	11/18/08	11/20/08	JWG0804427	
2-Chloronaphthalene	ND	U	5.6	0.79	1	11/18/08	11/20/08	JWG0804427	
2-Nitroaniline	ND	U	5.6	0.62	1	11/18/08	11/20/08	JWG0804427	
1,4-Naphthoquinone	ND	U	12	1.6	1	11/18/08	11/20/08	JWG0804427	
1,3-Dinitrobenzene	ND	U	12	1.7	1	11/18/08	11/20/08	JWG0804427	
Acenaphthylene	ND	U	5.6	0.65	1	11/18/08	11/20/08	JWG0804427	
Dimethyl Phthalate	ND	U	5.6	0.85	1	11/18/08	11/20/08	JWG0804427	
2,6-Dinitrotoluene	ND	U	5.6	0.93	1	11/18/08	11/20/08	JWG0804427	
Acenaphthene	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
3-Nitroaniline	ND	U	5.6	0.84	1	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrophenol	ND	U	23	0.60	1	11/18/08	11/20/08	JWG0804427	
Pentachlorobenzene	ND	U	5.6	2.7	1	11/18/08	11/20/08	JWG0804427	
Dibenzofuran	ND	U	5.6	0.88	1	11/18/08	11/20/08	JWG0804427	
4-Nitrophenol	ND	U	23	1.1	1	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrotoluene	ND	U	5.6	4.6	1	11/18/08	11/20/08	JWG0804427	
2-Naphthylamine	ND	U	5.6	1.3	1	11/18/08	11/20/08	JWG0804427	
2,3,4,6-Tetrachlorophenol	ND	U	5.6	1.4	1	11/18/08	11/20/08	JWG0804427	
1-Naphthylamine	ND	U	5.6	1.3	1	11/18/08	11/20/08	JWG0804427	
Fluorene	ND	U	5.6	0.98	1	11/18/08	11/20/08	JWG0804427	
4-Chlorophenyl Phenyl Ether	ND	U	5.6	0.68	1	11/18/08	11/20/08	JWG0804427	
Thionazin	ND	U	12	0.90	1	11/18/08	11/20/08	JWG0804427	
Diethyl Phthalate	ND	U	5.6	4.6	1	11/18/08	11/20/08	JWG0804427	
5-Nitro-o-toluidine	ND	U	5.6	1.2	1	11/18/08	11/20/08	JWG0804427	
4-Nitroaniline	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
2-Methyl-4,6-dinitrophenol	ND	UJ	23	0.72	1	11/18/08	11/20/08	JWG0804427	J(3)

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-2
Lab Code: J0805543-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine†	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
Diallate	ND	U	5.6	1.2	1	11/18/08	11/20/08	JWG0804427	
Phorate	ND	U	5.6	0.98	1	11/18/08	11/20/08	JWG0804427	
1,3,5-Trinitrobenzene	ND	U	5.6	1.3	1	11/18/08	11/20/08	JWG0804427	
4-Bromophenyl Phenyl Ether	ND	U	5.6	0.75	1	11/18/08	11/20/08	JWG0804427	
Phenacetin	ND	U	5.6	0.99	1	11/18/08	11/20/08	JWG0804427	
Hexachlorobenzene	ND	U	5.6	0.70	1	11/18/08	11/20/08	JWG0804427	
Dimethoate	ND	U	5.6	1.0	1	11/18/08	11/20/08	JWG0804427	
4-Aminobiphenyl	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
Pentachlorophenol	ND	U	23	0.75	1	11/18/08	11/20/08	JWG0804427	
Pentachloronitrobenzene	ND	U	5.6	1.7	1	11/18/08	11/20/08	JWG0804427	
Pronamide	ND	U	23	0.95	1	11/18/08	11/20/08	JWG0804427	
Phenanthrene	ND	U	5.6	0.78	1	11/18/08	11/20/08	JWG0804427	
Disulfoton	ND	U	5.6	0.58	1	11/18/08	11/20/08	JWG0804427	
Dinoseb	ND	U	5.6	0.68	1	11/18/08	11/20/08	JWG0804427	
Anthracene	ND	U	5.6	0.79	1	11/18/08	11/20/08	JWG0804427	
Methyl Parathion	ND	U	12	1.3	1	11/18/08	11/20/08	JWG0804427	
Di-n-butyl Phthalate	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
Parathion	ND	U	23	1.1	1	11/18/08	11/20/08	JWG0804427	
Methapyrilene	ND	U	5.6	1.7	1	11/18/08	11/20/08	JWG0804427	
Isodrin	ND	U	12	0.79	1	11/18/08	11/20/08	JWG0804427	
Fluoranthene	ND	U	5.6	0.74	1	11/18/08	11/20/08	JWG0804427	
Pyrene	ND	U	5.6	0.94	1	11/18/08	11/20/08	JWG0804427	
Chlorobenzilate	ND	U	12	0.94	1	11/18/08	11/20/08	JWG0804427	
3,3'-Dimethylbenzidine	ND	UJ	23	2.6	1	11/18/08	11/20/08	JWG0804427	J(3)
Famphur	ND	U	12	0.77	1	11/18/08	11/20/08	JWG0804427	
p-Dimethylaminoazobenzene	ND	U	5.6	0.99	1	11/18/08	11/20/08	JWG0804427	
Butyl Benzyl Phthalate	ND	U	12	1.3	1	11/18/08	11/20/08	JWG0804427	
2-Acetylaminofluorene	ND	U	5.6	1.0	1	11/18/08	11/20/08	JWG0804427	
Kepone	ND	U	56	4.7	1	11/18/08	11/20/08	JWG0804427	
3,3'-Dichlorobenzidine	ND	U	23	0.99	1	11/18/08	11/20/08	JWG0804427	
Benz(a)anthracene	ND	U	5.6	0.96	1	11/18/08	11/20/08	JWG0804427	
Chrysene	ND	U	5.6	0.97	1	11/18/08	11/20/08	JWG0804427	
Bis(2-ethylhexyl) Phthalate	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-2
Lab Code: J0805543-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Di-n-octyl Phthalate	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
Benzo(b)fluoranthene	ND	UJ	5.6	0.97	1	11/18/08	11/20/08	JWG0804427	J(3)
Benzo(k)fluoranthene	ND	U	5.6	0.60	1	11/18/08	11/20/08	JWG0804427	
7,12-Dimethylbenz(a)anthracene	ND	U	5.6	0.97	1	11/18/08	11/20/08	JWG0804427	
Benzo(a)pyrene	ND	U	5.6	0.70	1	11/18/08	11/20/08	JWG0804427	
3-Methylcholanthrene	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	
Indeno(1,2,3-cd)pyrene	ND	U	5.6	0.62	1	11/18/08	11/20/08	JWG0804427	
Dibenz(a,h)anthracene	ND	U	5.6	0.69	1	11/18/08	11/20/08	JWG0804427	
Benzo(g,h,i)perylene	ND	U	5.6	1.1	1	11/18/08	11/20/08	JWG0804427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	26	10-77	11/20/08	Acceptable
Phenol-d6	21	10-51	11/20/08	Acceptable
Nitrobenzene-d5	64	32-106	11/20/08	Acceptable
2-Fluorobiphenyl	49	30-102	11/20/08	Acceptable
2,4,6-Tribromophenol	62	30-143	11/20/08	Acceptable
Terphenyl-d14	39	23-165	11/20/08	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-3
Lab Code: J0805543-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	5.8	0.84	1	11/18/08	11/21/08	JWG0804427	
N-Nitrosomethylethylamine	ND	U	5.8	0.95	1	11/18/08	11/21/08	JWG0804427	
Methyl Methanesulfonate	ND	U	5.8	0.65	1	11/18/08	11/21/08	JWG0804427	
N-Nitrosodiethylamine	ND	U	5.8	0.73	1	11/18/08	11/21/08	JWG0804427	
Ethyl Methanesulfonate	ND	U	5.8	0.75	1	11/18/08	11/21/08	JWG0804427	
Phenol	ND	U	5.8	0.49	1	11/18/08	11/21/08	JWG0804427	
Bis(2-chloroethyl) Ether	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
2-Chlorophenol	ND	U	5.8	0.87	1	11/18/08	11/21/08	JWG0804427	
1,3-Dichlorobenzene	ND	U	5.8	0.81	1	11/18/08	11/21/08	JWG0804427	
1,4-Dichlorobenzene	**2.0**	I	5.8	1.4	1	11/18/08	11/21/08	JWG0804427	
1,2-Dichlorobenzene	ND	U	5.8	0.86	1	11/18/08	11/21/08	JWG0804427	
Bis(2-chloroisopropyl) Ether	ND	U	5.8	0.66	1	11/18/08	11/21/08	JWG0804427	
Benzyl alcohol	ND	U	5.8	0.80	1	11/18/08	11/21/08	JWG0804427	
2-Methylphenol	**4.2**	I	5.8	0.74	1	11/18/08	11/21/08	JWG0804427	
Acetophenone	ND	U	12	1.5	1	11/18/08	11/21/08	JWG0804427	
N-Nitrosopyrrolidine	ND	U	5.8	0.81	1	11/18/08	11/21/08	JWG0804427	
Hexachloroethane	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
N-Nitrosodi-n-propylamine	ND	U	5.8	0.79	1	11/18/08	11/21/08	JWG0804427	
o-Toluidine	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
4-Methylphenol†	**110**		5.8	0.89	1	11/18/08	11/21/08	JWG0804427	
Nitrobenzene	ND	U	5.8	0.84	1	11/18/08	11/21/08	JWG0804427	
N-Nitrosopiperidine	ND	U	5.8	1.9	1	11/18/08	11/21/08	JWG0804427	
Isophorone	ND	U	5.8	0.92	1	11/18/08	11/21/08	JWG0804427	
2-Nitrophenol	ND	U	23	0.69	1	11/18/08	11/21/08	JWG0804427	
2,4-Dimethylphenol	ND	U	5.8	0.91	1	11/18/08	11/21/08	JWG0804427	
O,O,O-Triethyl Phosphorothioate	ND	U	23	0.60	1	11/18/08	11/21/08	JWG0804427	
bis(2-Chloroethoxy)methane	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
2,4-Dichlorophenol	ND	U	5.8	0.58	1	11/18/08	11/21/08	JWG0804427	
1,2,4-Trichlorobenzene	ND	U	5.8	0.90	1	11/18/08	11/21/08	JWG0804427	
Naphthalene	**2.5**	I	5.8	0.91	1	11/18/08	11/21/08	JWG0804427	
2,6-Dichlorophenol	ND	U	12	0.83	1	11/18/08	11/21/08	JWG0804427	
Hexachloropropene	ND	U	5.8	2.2	1	11/18/08	11/21/08	JWG0804427	
4-Chloroaniline	ND	U	5.8	0.61	1	11/18/08	11/21/08	JWG0804427	
Hexachlorobutadiene	ND	U	5.8	0.71	1	11/18/08	11/21/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-3
Lab Code: J0805543-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodi-n-butylamine	ND	U	5.8	0.78	1	11/18/08	11/21/08	JWG0804427	
p-Phenylenediamine	ND	U	23	1.3	1	11/18/08	11/21/08	JWG0804427	
4-Chloro-3-methylphenol	ND	U	5.8	0.87	1	11/18/08	11/21/08	JWG0804427	
2-Methylnaphthalene	ND	U	5.8	0.86	1	11/18/08	11/21/08	JWG0804427	
Hexachlorocyclopentadiene	ND	U	5.8	0.48	1	11/18/08	11/21/08	JWG0804427	
1,2,4,5-Tetrachlorobenzene	ND	U	5.8	0.64	1	11/18/08	11/21/08	JWG0804427	
Safrole	ND	U	5.8	0.82	1	11/18/08	11/21/08	JWG0804427	
2,4,6-Trichlorophenol	ND	U	5.8	0.84	1	11/18/08	11/21/08	JWG0804427	
2,4,5-Trichlorophenol	ND	U	5.8	0.75	1	11/18/08	11/21/08	JWG0804427	
Isosafrole	ND	U	5.8	0.87	1	11/18/08	11/21/08	JWG0804427	
2-Chloronaphthalene	ND	U	5.8	0.82	1	11/18/08	11/21/08	JWG0804427	
2-Nitroaniline	ND	U	5.8	0.64	1	11/18/08	11/21/08	JWG0804427	
1,4-Naphthoquinone	ND	U	12	1.7	1	11/18/08	11/21/08	JWG0804427	
1,3-Dinitrobenzene	ND	U	12	1.8	1	11/18/08	11/21/08	JWG0804427	
Acenaphthylene	ND	U	5.8	0.67	1	11/18/08	11/21/08	JWG0804427	
Dimethyl Phthalate	ND	U	5.8	0.88	1	11/18/08	11/21/08	JWG0804427	
2,6-Dinitrotoluene	ND	U	5.8	0.96	1	11/18/08	11/21/08	JWG0804427	
Acenaphthene	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
3-Nitroaniline	ND	U	5.8	0.87	1	11/18/08	11/21/08	JWG0804427	
2,4-Dinitrophenol	ND	U	23	0.63	1	11/18/08	11/21/08	JWG0804427	
Pentachlorobenzene	ND	U	5.8	2.8	1	11/18/08	11/21/08	JWG0804427	
Dibenzofuran	ND	U	5.8	0.91	1	11/18/08	11/21/08	JWG0804427	
4-Nitrophenol	ND	U	23	1.1	1	11/18/08	11/21/08	JWG0804427	
2,4-Dinitrotoluene	ND	U	5.8	4.8	1	11/18/08	11/21/08	JWG0804427	
2-Naphthylamine	ND	U	5.8	1.3	1	11/18/08	11/21/08	JWG0804427	
2,3,4,6-Tetrachlorophenol	ND	U	5.8	1.4	1	11/18/08	11/21/08	JWG0804427	
1-Naphthylamine	ND	U	5.8	1.3	1	11/18/08	11/21/08	JWG0804427	
Fluorene	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
4-Chlorophenyl Phenyl Ether	ND	U	5.8	0.71	1	11/18/08	11/21/08	JWG0804427	
Thionazin	ND	U	12	0.94	1	11/18/08	11/21/08	JWG0804427	
Diethyl Phthalate	ND	U	5.8	4.8	1	11/18/08	11/21/08	JWG0804427	
5-Nitro-o-toluidine	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
4-Nitroaniline	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
2-Methyl-4,6-dinitrophenol	ND	UJ	23	0.74	1	11/18/08	11/21/08	JWG0804427	J(3)

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-3
Lab Code: J0805543-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine†	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
Diallate	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
Phorate	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
1,3,5-Trinitrobenzene	ND	U	5.8	1.3	1	11/18/08	11/21/08	JWG0804427	
4-Bromophenyl Phenyl Ether	ND	U	5.8	0.78	1	11/18/08	11/21/08	JWG0804427	
Phenacetin	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
Hexachlorobenzene	ND	U	5.8	0.73	1	11/18/08	11/21/08	JWG0804427	
Dimethoate	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
4-Aminobiphenyl	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
Pentachlorophenol	ND	U	23	0.78	1	11/18/08	11/21/08	JWG0804427	
Pentachloronitrobenzene	ND	U	5.8	1.8	1	11/18/08	11/21/08	JWG0804427	
Pronamide	ND	U	23	0.98	1	11/18/08	11/21/08	JWG0804427	
Phenanthrene	ND	U	5.8	0.81	1	11/18/08	11/21/08	JWG0804427	
Disulfoton	ND	U	5.8	0.60	1	11/18/08	11/21/08	JWG0804427	
Dinoseb	ND	U	5.8	0.71	1	11/18/08	11/21/08	JWG0804427	
Anthracene	ND	U	5.8	0.82	1	11/18/08	11/21/08	JWG0804427	
Methyl Parathion	ND	U	12	1.3	1	11/18/08	11/21/08	JWG0804427	
Di-n-butyl Phthalate	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
Parathion	ND	U	23	1.1	1	11/18/08	11/21/08	JWG0804427	
Methapyrilene	ND	U	5.8	1.8	1	11/18/08	11/21/08	JWG0804427	
Isodrin	ND	U	12	0.82	1	11/18/08	11/21/08	JWG0804427	
Fluoranthene	ND	U	5.8	0.76	1	11/18/08	11/21/08	JWG0804427	
Pyrene	ND	U	5.8	0.97	1	11/18/08	11/21/08	JWG0804427	
Chlorobenzilate	ND	U	12	0.97	1	11/18/08	11/21/08	JWG0804427	
3,3'-Dimethylbenzidine	ND	UJ	23	2.7	1	11/18/08	11/21/08	JWG0804427	J(3)
Famphur	ND	U	12	0.80	1	11/18/08	11/21/08	JWG0804427	
p-Dimethylaminoazobenzene	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
Butyl Benzyl Phthalate	ND	U	12	1.3	1	11/18/08	11/21/08	JWG0804427	
2-Acetylaminofluorene	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
Kepone	ND	U	58	4.9	1	11/18/08	11/21/08	JWG0804427	
3,3'-Dichlorobenzidine	ND	U	23	1.1	1	11/18/08	11/21/08	JWG0804427	
Benz(a)anthracene	ND	U	5.8	0.99	1	11/18/08	11/21/08	JWG0804427	
Chrysene	ND	U	5.8	1.0	1	11/18/08	11/21/08	JWG0804427	
Bis(2-ethylhexyl) Phthalate	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-3	**Units:**	ug/L
Lab Code:	J0805543-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Di-n-octyl Phthalate	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	
Benzo(b)fluoranthene	ND	UJ	5.8	1.0	1	11/18/08	11/21/08	JWG0804427	J(3)
Benzo(k)fluoranthene	ND	U	5.8	0.63	1	11/18/08	11/21/08	JWG0804427	
7,12-Dimethylbenz(a)anthracene	ND	U	5.8	1.0	1	11/18/08	11/21/08	JWG0804427	
Benzo(a)pyrene	ND	U	5.8	0.73	1	11/18/08	11/21/08	JWG0804427	
3-Methylcholanthrene	ND	U	5.8	1.2	1	11/18/08	11/21/08	JWG0804427	
Indeno(1,2,3-cd)pyrene	ND	U	5.8	0.64	1	11/18/08	11/21/08	JWG0804427	
Dibenz(a,h)anthracene	ND	U	5.8	0.72	1	11/18/08	11/21/08	JWG0804427	
Benzo(g,h,i)perylene	ND	U	5.8	1.1	1	11/18/08	11/21/08	JWG0804427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	24	10-77	11/21/08	Acceptable
Phenol-d6	24	10-51	11/21/08	Acceptable
Nitrobenzene-d5	57	32-106	11/21/08	Acceptable
2-Fluorobiphenyl	40	30-102	11/21/08	Acceptable
2,4,6-Tribromophenol	53	30-143	11/21/08	Acceptable
Terphenyl-d14	28	23-165	11/21/08	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804427-1

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	5.0	0.73	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosomethylethylamine	ND	U	5.0	0.82	1	11/18/08	11/19/08	JWG0804427	
Methyl Methanesulfonate	ND	U	5.0	0.56	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosodiethylamine	ND	U	5.0	0.63	1	11/18/08	11/19/08	JWG0804427	
Ethyl Methanesulfonate	ND	U	5.0	0.65	1	11/18/08	11/19/08	JWG0804427	
Phenol	ND	U	5.0	0.42	1	11/18/08	11/19/08	JWG0804427	
Bis(2-chloroethyl) Ether	ND	U	5.0	0.96	1	11/18/08	11/19/08	JWG0804427	
2-Chlorophenol	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
1,3-Dichlorobenzene	ND	U	5.0	0.70	1	11/18/08	11/19/08	JWG0804427	
1,4-Dichlorobenzene	ND	U	5.0	1.2	1	11/18/08	11/19/08	JWG0804427	
1,2-Dichlorobenzene	ND	U	5.0	0.74	1	11/18/08	11/19/08	JWG0804427	
Bis(2-chloroisopropyl) Ether	ND	U	5.0	0.57	1	11/18/08	11/19/08	JWG0804427	
Benzyl alcohol	ND	U	5.0	0.69	1	11/18/08	11/19/08	JWG0804427	
2-Methylphenol	ND	U	5.0	0.64	1	11/18/08	11/19/08	JWG0804427	
Acetophenone	ND	U	10	1.3	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosopyrrolidine	ND	U	5.0	0.70	1	11/18/08	11/19/08	JWG0804427	
Hexachloroethane	ND	U	5.0	0.92	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosodi-n-propylamine	ND	U	5.0	0.68	1	11/18/08	11/19/08	JWG0804427	
o-Toluidine	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
4-Methylphenol†	ND	U	5.0	0.77	1	11/18/08	11/19/08	JWG0804427	
Nitrobenzene	ND	U	5.0	0.73	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosopiperidine	ND	U	5.0	1.6	1	11/18/08	11/19/08	JWG0804427	
Isophorone	ND	U	5.0	0.80	1	11/18/08	11/19/08	JWG0804427	
2-Nitrophenol	ND	U	20	0.60	1	11/18/08	11/19/08	JWG0804427	
2,4-Dimethylphenol	ND	U	5.0	0.79	1	11/18/08	11/19/08	JWG0804427	
O,O,O-Triethyl Phosphorothioate	ND	U	20	0.52	1	11/18/08	11/19/08	JWG0804427	
bis(2-Chloroethoxy)methane	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
2,4-Dichlorophenol	ND	U	5.0	0.50	1	11/18/08	11/19/08	JWG0804427	
1,2,4-Trichlorobenzene	ND	U	5.0	0.78	1	11/18/08	11/19/08	JWG0804427	
Naphthalene	ND	U	5.0	0.79	1	11/18/08	11/19/08	JWG0804427	
2,6-Dichlorophenol	ND	U	10	0.72	1	11/18/08	11/19/08	JWG0804427	
Hexachloropropene	ND	U	5.0	1.9	1	11/18/08	11/19/08	JWG0804427	
4-Chloroaniline	ND	U	5.0	0.53	1	11/18/08	11/19/08	JWG0804427	
Hexachlorobutadiene	ND	U	5.0	0.61	1	11/18/08	11/19/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804427-1

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodi-n-butylamine	ND	U	5.0	0.67	1	11/18/08	11/19/08	JWG0804427	
p-Phenylenediamine	ND	U	20	1.1	1	11/18/08	11/19/08	JWG0804427	
4-Chloro-3-methylphenol	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
2-Methylnaphthalene	ND	U	5.0	0.74	1	11/18/08	11/19/08	JWG0804427	
Hexachlorocyclopentadiene	ND	U	5.0	0.41	1	11/18/08	11/19/08	JWG0804427	
1,2,4,5-Tetrachlorobenzene	ND	U	5.0	0.55	1	11/18/08	11/19/08	JWG0804427	
Safrole	ND	U	5.0	0.71	1	11/18/08	11/19/08	JWG0804427	
2,4,6-Trichlorophenol	ND	U	5.0	0.73	1	11/18/08	11/19/08	JWG0804427	
2,4,5-Trichlorophenol	ND	U	5.0	0.65	1	11/18/08	11/19/08	JWG0804427	
Isosafrole	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
2-Chloronaphthalene	ND	U	5.0	0.71	1	11/18/08	11/19/08	JWG0804427	
2-Nitroaniline	ND	U	5.0	0.55	1	11/18/08	11/19/08	JWG0804427	
1,4-Naphthoquinone	ND	U	10	1.4	1	11/18/08	11/19/08	JWG0804427	
1,3-Dinitrobenzene	ND	U	10	1.5	1	11/18/08	11/19/08	JWG0804427	
Acenaphthylene	ND	U	5.0	0.58	1	11/18/08	11/19/08	JWG0804427	
Dimethyl Phthalate	ND	U	5.0	0.76	1	11/18/08	11/19/08	JWG0804427	
2,6-Dinitrotoluene	ND	U	5.0	0.83	1	11/18/08	11/19/08	JWG0804427	
Acenaphthene	ND	U	5.0	0.99	1	11/18/08	11/19/08	JWG0804427	
3-Nitroaniline	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
2,4-Dinitrophenol	ND	U	20	0.54	1	11/18/08	11/19/08	JWG0804427	
Pentachlorobenzene	ND	U	5.0	2.4	1	11/18/08	11/19/08	JWG0804427	
Dibenzofuran	ND	U	5.0	0.79	1	11/18/08	11/19/08	JWG0804427	
4-Nitrophenol	ND	U	20	0.93	1	11/18/08	11/19/08	JWG0804427	
2,4-Dinitrotoluene	ND	U	5.0	4.1	1	11/18/08	11/19/08	JWG0804427	
2-Naphthylamine	ND	U	5.0	1.1	1	11/18/08	11/19/08	JWG0804427	
2,3,4,6-Tetrachlorophenol	ND	U	5.0	1.2	1	11/18/08	11/19/08	JWG0804427	
1-Naphthylamine	ND	U	5.0	1.1	1	11/18/08	11/19/08	JWG0804427	
Fluorene	ND	U	5.0	0.88	1	11/18/08	11/19/08	JWG0804427	
4-Chlorophenyl Phenyl Ether	ND	U	5.0	0.61	1	11/18/08	11/19/08	JWG0804427	
Thionazin	ND	U	10	0.81	1	11/18/08	11/19/08	JWG0804427	
Diethyl Phthalate	ND	U	5.0	4.1	1	11/18/08	11/19/08	JWG0804427	
5-Nitro-o-toluidine	ND	U	5.0	1.0	1	11/18/08	11/19/08	JWG0804427	
4-Nitroaniline	ND	U	5.0	0.92	1	11/18/08	11/19/08	JWG0804427	
2-Methyl-4,6-dinitrophenol	ND	UJ	20	0.64	1	11/18/08	11/19/08	JWG0804427	J(3)

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804427-1

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine†	ND	U	5.0	0.96	1	11/18/08	11/19/08	JWG0804427	
Diallate	ND	U	5.0	1.0	1	11/18/08	11/19/08	JWG0804427	
Phorate	ND	U	5.0	0.88	1	11/18/08	11/19/08	JWG0804427	
1,3,5-Trinitrobenzene	ND	U	5.0	1.1	1	11/18/08	11/19/08	JWG0804427	
4-Bromophenyl Phenyl Ether	ND	U	5.0	0.67	1	11/18/08	11/19/08	JWG0804427	
Phenacetin	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
Hexachlorobenzene	ND	U	5.0	0.63	1	11/18/08	11/19/08	JWG0804427	
Dimethoate	ND	U	5.0	0.90	1	11/18/08	11/19/08	JWG0804427	
4-Aminobiphenyl	ND	U	5.0	0.99	1	11/18/08	11/19/08	JWG0804427	
Pentachlorophenol	ND	U	20	0.67	1	11/18/08	11/19/08	JWG0804427	
Pentachloronitrobenzene	ND	U	5.0	1.5	1	11/18/08	11/19/08	JWG0804427	
Pronamide	ND	U	20	0.85	1	11/18/08	11/19/08	JWG0804427	
Phenanthrene	ND	U	5.0	0.70	1	11/18/08	11/19/08	JWG0804427	
Disulfoton	ND	U	5.0	0.52	1	11/18/08	11/19/08	JWG0804427	
Dinoseb	ND	U	5.0	0.61	1	11/18/08	11/19/08	JWG0804427	
Anthracene	ND	U	5.0	0.71	1	11/18/08	11/19/08	JWG0804427	
Methyl Parathion	ND	U	10	1.1	1	11/18/08	11/19/08	JWG0804427	
Di-n-butyl Phthalate	ND	U	5.0	0.97	1	11/18/08	11/19/08	JWG0804427	
Parathion	ND	U	20	0.93	1	11/18/08	11/19/08	JWG0804427	
Methapyrilene	ND	U	5.0	1.5	1	11/18/08	11/19/08	JWG0804427	
Isodrin	ND	U	10	0.71	1	11/18/08	11/19/08	JWG0804427	
Fluoranthene	ND	U	5.0	0.66	1	11/18/08	11/19/08	JWG0804427	
Pyrene	ND	U	5.0	0.84	1	11/18/08	11/19/08	JWG0804427	
Chlorobenzilate	ND	U	10	0.84	1	11/18/08	11/19/08	JWG0804427	
3,3'-Dimethylbenzidine	ND	UJ	20	2.3	1	11/18/08	11/19/08	JWG0804427	J(3)
Famphur	ND	U	10	0.69	1	11/18/08	11/19/08	JWG0804427	
p-Dimethylaminoazobenzene	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
Butyl Benzyl Phthalate	ND	U	10	1.1	1	11/18/08	11/19/08	JWG0804427	
2-Acetylaminofluorene	ND	U	5.0	0.90	1	11/18/08	11/19/08	JWG0804427	
Kepone	ND	U	50	4.2	1	11/18/08	11/19/08	JWG0804427	
3,3'-Dichlorobenzidine	ND	U	20	0.89	1	11/18/08	11/19/08	JWG0804427	
Benz(a)anthracene	ND	U	5.0	0.86	1	11/18/08	11/19/08	JWG0804427	
Chrysene	ND	U	5.0	0.87	1	11/18/08	11/19/08	JWG0804427	
Bis(2-ethylhexyl) Phthalate	ND	U	5.0	0.98	1	11/18/08	11/19/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804427-1	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Di-n-octyl Phthalate	ND	U	5.0	0.95	1	11/18/08	11/19/08	JWG0804427	
Benzo(b)fluoranthene	ND	UJ	5.0	0.87	1	11/18/08	11/19/08	JWG0804427	J(3)
Benzo(k)fluoranthene	ND	U	5.0	0.54	1	11/18/08	11/19/08	JWG0804427	
7,12-Dimethylbenz(a)anthracene	ND	U	5.0	0.87	1	11/18/08	11/19/08	JWG0804427	
Benzo(a)pyrene	ND	U	5.0	0.63	1	11/18/08	11/19/08	JWG0804427	
3-Methylcholanthrene	ND	U	5.0	0.97	1	11/18/08	11/19/08	JWG0804427	
Indeno(1,2,3-cd)pyrene	ND	U	5.0	0.55	1	11/18/08	11/19/08	JWG0804427	
Dibenz(a,h)anthracene	ND	U	5.0	0.62	1	11/18/08	11/19/08	JWG0804427	
Benzo(g,h,i)perylene	ND	U	5.0	0.91	1	11/18/08	11/19/08	JWG0804427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	25	10-77	11/19/08	Acceptable
Phenol-d6	20	10-51	11/19/08	Acceptable
Nitrobenzene-d5	68	32-106	11/19/08	Acceptable
2-Fluorobiphenyl	55	30-102	11/19/08	Acceptable
2,4,6-Tribromophenol	74	30-143	11/19/08	Acceptable
Terphenyl-d14	73	23-165	11/19/08	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

Organochlorine Pesticides by GC-ECD

Sample Name:	L-2	**Units:**	ug/L
Lab Code:	J0805543-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.023	0.0090	1	11/12/08	11/21/08	JWG0804348	
gamma-BHC (Lindane)	ND	U	0.023	0.0094	1	11/12/08	11/21/08	JWG0804348	
beta-BHC	ND	U	0.023	0.0097	1	11/12/08	11/21/08	JWG0804348	
delta-BHC	ND	U	0.023	0.013	1	11/12/08	11/21/08	JWG0804348	
Heptachlor	ND	U	0.023	0.011	1	11/12/08	11/21/08	JWG0804348	
Aldrin	ND	U	0.023	0.0078	1	11/12/08	11/21/08	JWG0804348	
Heptachlor Epoxide	ND	U	0.023	0.0090	1	11/12/08	11/21/08	JWG0804348	
gamma-Chlordane	ND	U	0.023	0.0086	1	11/12/08	11/21/08	JWG0804348	
alpha-Chlordane	ND	U	0.023	0.0075	1	11/12/08	11/21/08	JWG0804348	
4,4'-DDE	ND	U	0.023	0.0096	1	11/12/08	11/21/08	JWG0804348	
Endosulfan I	ND	U	0.023	0.011	1	11/12/08	11/21/08	JWG0804348	
Dieldrin	ND	U	0.023	0.0083	1	11/12/08	11/21/08	JWG0804348	
Endrin	ND	U	0.023	0.011	1	11/12/08	11/21/08	JWG0804348	
4,4'-DDD	ND	U	0.023	0.0090	1	11/12/08	11/21/08	JWG0804348	
Endosulfan II	ND	U	0.23	0.23	1	11/12/08	11/21/08	JWG0804348	
4,4'-DDT	ND	U	0.023	0.015	1	11/12/08	11/21/08	JWG0804348	
Endrin Aldehyde	ND	U	0.023	0.0097	1	11/12/08	11/21/08	JWG0804348	
Methoxychlor	ND	U	0.046	0.013	1	11/12/08	11/21/08	JWG0804348	
Endosulfan Sulfate	ND	U	0.023	0.011	1	11/12/08	11/21/08	JWG0804348	
Endrin Ketone	ND	U	0.023	0.0061	1	11/12/08	11/21/08	JWG0804348	
Toxaphene	ND	U	0.57	0.57	1	11/12/08	11/21/08	JWG0804348	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	8	32-92	11/21/08	Outside Control Limits
Decachlorobiphenyl	4	13-104	11/21/08	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

Organochlorine Pesticides by GC-ECD

Sample Name:	L-3	**Units:**	ug/L
Lab Code:	J0805543-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.023	0.0088	1	11/12/08	11/21/08	JWG0804348	
gamma-BHC (Lindane)	ND	U	0.023	0.0092	1	11/12/08	11/21/08	JWG0804348	
beta-BHC	ND	U	0.023	0.0095	1	11/12/08	11/21/08	JWG0804348	
delta-BHC	ND	U	0.023	0.013	1	11/12/08	11/21/08	JWG0804348	
Heptachlor	ND	U	0.023	0.011	1	11/12/08	11/21/08	JWG0804348	
Aldrin	ND	U	0.023	0.0076	1	11/12/08	11/21/08	JWG0804348	
Heptachlor Epoxide	ND	U	0.023	0.0088	1	11/12/08	11/21/08	JWG0804348	
gamma-Chlordane	ND	U	0.023	0.0084	1	11/12/08	11/21/08	JWG0804348	
alpha-Chlordane	ND	U	0.023	0.0074	1	11/12/08	11/21/08	JWG0804348	
4,4'-DDE	ND	U	0.023	0.0094	1	11/12/08	11/21/08	JWG0804348	
Endosulfan I	ND	U	0.023	0.0099	1	11/12/08	11/21/08	JWG0804348	
Dieldrin	ND	U	0.023	0.0082	1	11/12/08	11/21/08	JWG0804348	
Endrin	ND	U	0.023	0.010	1	11/12/08	11/21/08	JWG0804348	
4,4'-DDD	ND	U	0.023	0.0088	1	11/12/08	11/21/08	JWG0804348	
Endosulfan II	ND	U	0.23	0.23	1	11/12/08	11/21/08	JWG0804348	
4,4'-DDT	ND	U	0.023	0.015	1	11/12/08	11/21/08	JWG0804348	
Endrin Aldehyde	ND	U	0.023	0.0095	1	11/12/08	11/21/08	JWG0804348	
Methoxychlor	ND	U	0.045	0.013	1	11/12/08	11/21/08	JWG0804348	
Endosulfan Sulfate	ND	U	0.023	0.011	1	11/12/08	11/21/08	JWG0804348	
Endrin Ketone	ND	U	0.023	0.0059	1	11/12/08	11/21/08	JWG0804348	
Toxaphene	ND	U	0.56	0.56	1	11/12/08	11/21/08	JWG0804348	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	25	32-92	11/21/08	Outside Control Limits
Decachlorobiphenyl	16	13-104	11/21/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Organochlorine Pesticides by GC-ECD

Sample Name: Method Blank
Lab Code: JWG0804348-3

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8081A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.020	0.0079	1	11/12/08	11/20/08	JWG0804348	
gamma-BHC (Lindane)	ND	U	0.020	0.0082	1	11/12/08	11/20/08	JWG0804348	
beta-BHC	ND	U	0.020	0.0085	1	11/12/08	11/20/08	JWG0804348	
delta-BHC	ND	U	0.020	0.011	1	11/12/08	11/20/08	JWG0804348	
Heptachlor	ND	U	0.020	0.0096	1	11/12/08	11/20/08	JWG0804348	
Aldrin	ND	U	0.020	0.0068	1	11/12/08	11/20/08	JWG0804348	
Heptachlor Epoxide	ND	U	0.020	0.0079	1	11/12/08	11/20/08	JWG0804348	
gamma-Chlordane	ND	U	0.020	0.0075	1	11/12/08	11/20/08	JWG0804348	
alpha-Chlordane	ND	U	0.020	0.0066	1	11/12/08	11/20/08	JWG0804348	
4,4'-DDE	ND	U	0.020	0.0084	1	11/12/08	11/20/08	JWG0804348	
Endosulfan I	ND	U	0.020	0.0089	1	11/12/08	11/20/08	JWG0804348	
Dieldrin	ND	U	0.020	0.0073	1	11/12/08	11/20/08	JWG0804348	
Endrin	ND	U	0.020	0.0090	1	11/12/08	11/20/08	JWG0804348	
4,4'-DDD	ND	U	0.020	0.0079	1	11/12/08	11/20/08	JWG0804348	
Endosulfan II	ND	U	0.20	0.20	1	11/12/08	11/20/08	JWG0804348	
4,4'-DDT	ND	U	0.020	0.013	1	11/12/08	11/20/08	JWG0804348	
Endrin Aldehyde	ND	U	0.020	0.0085	1	11/12/08	11/20/08	JWG0804348	
Methoxychlor	ND	U	0.040	0.011	1	11/12/08	11/20/08	JWG0804348	
Endosulfan Sulfate	ND	U	0.020	0.0092	1	11/12/08	11/20/08	JWG0804348	
Endrin Ketone	ND	U	0.020	0.0053	1	11/12/08	11/20/08	JWG0804348	
Toxaphene	ND	U	0.50	0.50	1	11/12/08	11/20/08	JWG0804348	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	68	32-92	11/20/08	Acceptable
Decachlorobiphenyl	85	13-104	11/20/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Sample Name: L-2
Lab Code: J0805543-001

Extraction Method: EPA 3510C
Analysis Method: 8082

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.57	0.15	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1221	ND	U	0.57	0.25	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1232	ND	U	0.57	0.27	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1242	ND	U	0.57	0.14	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1248	ND	U	0.57	0.30	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1254	ND	U	0.57	0.43	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1260	ND	U	0.57	0.20	1	11/12/08	11/21/08	JWG0804349	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	4	24-120	11/21/08	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Sample Name: L-3
Lab Code: J0805543-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8082

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.56	0.15	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1221	ND	U	0.56	0.25	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1232	ND	U	0.56	0.26	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1242	ND	U	0.56	0.14	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1248	ND	U	0.56	0.29	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1254	ND	U	0.56	0.42	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1260	ND	U	0.56	0.19	1	11/12/08	11/21/08	JWG0804349	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	21	24-120	11/21/08	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Sample Name: Method Blank
Lab Code: JWG0804349-2

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8082

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.50	0.13	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1221	ND	U	0.50	0.22	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1232	ND	U	0.50	0.23	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1242	ND	U	0.50	0.12	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1248	ND	U	0.50	0.26	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1254	ND	U	0.50	0.37	1	11/12/08	11/21/08	JWG0804349	
Aroclor 1260	ND	U	0.50	0.17	1	11/12/08	11/21/08	JWG0804349	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	89	24-120	11/21/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: L-2
Lab Code: J0805543-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/24/2008	10	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/24/2008	39	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/24/2008	305	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/24/2008	0.4	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/24/2008	0.99	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/24/2008	97	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/24/2008	4.6	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/24/2008	6.8	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	4370	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	6.8	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.09	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/24/2008	58	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/24/2008	48	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Tin	EPA 3020A	6020	5.0	0.3	1.0	11/21/2008	11/24/2008	1.4	i
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/24/2008	247	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/24/2008	12	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805543
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: L-3
Lab Code: J0805543-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/24/2008	5.0	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/24/2008	13	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/24/2008	126	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/24/2008	0.3	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/24/2008	0.72	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/24/2008	46	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/24/2008	5.1	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/24/2008	4.7	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	3380	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	5.1	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.10	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/24/2008	37	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/24/2008	18	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Tin	EPA 3020A	6020	5.0	0.3	1.0	11/21/2008	11/24/2008	0.5	i
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/24/2008	120	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/24/2008	54	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER		

Total Metals

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	MB21121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/24/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/24/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/24/2008	U	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/24/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/24/2008	0.14	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/24/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/24/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/24/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/21/2008	11/21/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.08	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/24/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/24/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Tin	EPA 3020A	6020	5.0	0.3	1.0	11/21/2008	11/24/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/24/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/24/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project Name:	JED SWDF	**Date Collected:**	11/12/2008
Project Number:	FQ1512	**Date Received:**	11/13/2008
Matrix:	WATER		

Total Metals
Sodium

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
L-2	J0805543-001	5.0	0.20	10.0	11/21/2008	11/25/2008	1940	
L-3	J0805543-003	0.50	0.02	1.0	11/21/2008	11/21/2008	481	
Method Blank	MB1-1121	0.50	0.02	1.0	11/21/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805543
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : L-2
Lab Code : J0805543-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	10	3.2	2.5	11/24/08 14:00	570	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5	2	100	11/17/08 13:11	370	
Chloride	mg/L (ppm)	300.0	20	3.1	100	11/22/08 13:05	4700	
Cyanide, Total	mg/L (ppm)	335.4	0.01	0.004	1	11/26/08 14:28	0.012	
Nitrate as Nitrogen	mg/L (ppm)	300.0	2	0.38	10	11/14/08 03:01	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	8400	
Sulfide	mg/L (ppm)	376.1	2	0.38	1	11/18/08 18:30	15	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805543
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : L-3
Lab Code : J0805543-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	10	3.2	2	11/24/08 14:00	720	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5	2	100	11/17/08 13:11	190	
Chloride	mg/L (ppm)	300.0	2	0.31	10	11/13/08 17:03	930	
Cyanide, Total	mg/L (ppm)	335.4	0.01	0.004	1	11/26/08 14:28	0.013	
Nitrate as Nitrogen	mg/L (ppm)	300.0	2	0.38	10	11/14/08 03:16	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	2700	
Sulfide	mg/L (ppm)	376.1	2	0.38	1	11/18/08 18:30	4.9	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805543
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805543-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	5	1.6	1	11/24/08 14:00	U	
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/13/08 17:03	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/22/08 13:05	U	
Cyanide, Total	mg/L (ppm)	335.4	0.01	0.004	1	11/26/08 14:28	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/13/08 17:03	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	U	
Sulfide	mg/L (ppm)	376.1	2	0.38	1	11/18/08 18:30	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543

Surrogate Recovery Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
L-2	J0805543-001	98	97	96	97
Trip Blank	J0805543-002	97	97	97	100
L-3	J0805543-003	103	97	100	95
Trip Blank	J0805543-004	96	102	96	99
Method Blank	JWG0804378-4	98	96	96	96
Lab Control Sample	JWG0804378-3	95	97	94	95

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/14/2008
Sample Matrix:	Water	**Date Analyzed:**	11/14/2008

Lab Control Spike Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804378

	Lab Control Sample JWG0804378-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	12.5	20.0	62 *	69-138
Chloromethane	15.3	20.0	76	67-135
Vinyl Chloride	17.5	20.0	87	78-132
Bromomethane	21.3	20.0	106	79-130
Chloroethane	21.4	20.0	107	74-126
Trichlorofluoromethane	21.1	20.0	106	74-134
Acrolein	88.5	100	89	61-137
1,1-Dichloroethene	19.9	20.0	99	78-130
Acetone	97.7	100	98	67-133
Iodomethane (Methyl Iodide)	91.4	100	91	68-134
Carbon Disulfide	90.7	100	91	76-138
Acetonitrile	101	100	101	67-132
Allyl Chloride	20.1	20.0	101	68-128
Methylene Chloride	20.3	20.0	102	72-124
Acrylonitrile	105	100	105	77-127
trans-1,2-Dichloroethene	19.1	20.0	96	77-124
1,1-Dichloroethane	19.4	20.0	97	80-128
Vinyl Acetate	94.9	100	95	61-148
Chloroprene	19.8	20.0	99	81-132
cis-1,2-Dichloroethene	19.9	20.0	99	80-126
2,2-Dichloropropane	20.1	20.0	101	72-136
1,1-Dichloropropene	19.6	20.0	98	85-124
2-Butanone (MEK)	94.1	100	94	73-127
Propionitrile	105	100	105	77-131
Bromochloromethane	20.6	20.0	103	79-129
Methacrylonitrile	20.7	20.0	104	77-129
Chloroform	20.0	20.0	100	83-124
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	79-124
Carbon Tetrachloride	19.9	20.0	99	81-125
Benzene	19.4	20.0	97	79-119
1,2-Dichloroethane (EDC)	20.0	20.0	100	80-124
Isobutyl Alcohol	500	400	125	62-139
Trichloroethene (TCE)	18.6	20.0	93	76-124
1,2-Dichloropropane	19.7	20.0	99	79-123
Dibromomethane	19.8	20.0	99	83-123
Methyl Methacrylate	20.2	20.0	101	79-128

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/14/2008
Sample Matrix:	Water	**Date Analyzed:**	11/14/2008

Lab Control Spike Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804378

	Lab Control Sample JWG0804378-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Bromodichloromethane	19.7	20.0	98	81-123
cis-1,3-Dichloropropene	19.7	20.0	99	86-123
4-Methyl-2-pentanone (MIBK)	102	100	102	72-136
Toluene	19.7	20.0	98	86-117
trans-1,3-Dichloropropene	20.2	20.0	101	83-124
Ethyl Methacrylate	20.8	20.0	104	78-127
1,1,2-Trichloroethane	19.8	20.0	99	86-114
Tetrachloroethene (PCE)	19.6	20.0	98	80-121
1,3-Dichloropropane	20.1	20.0	101	88-117
2-Hexanone	102	100	102	71-138
Dibromochloromethane	19.5	20.0	98	82-121
1,2-Dibromoethane (EDB)	20.4	20.0	102	88-117
Chlorobenzene	19.9	20.0	99	86-113
1,1,1,2-Tetrachloroethane	20.6	20.0	103	85-117
Ethylbenzene	20.3	20.0	102	90-118
m,p-Xylenes	40.7	40.0	102	86-121
o-Xylene	20.1	20.0	100	89-119
Styrene	19.9	20.0	100	89-122
Bromoform	19.5	20.0	98	68-129
1,1,2,2-Tetrachloroethane	21.4	20.0	107	83-120
1,2,3-Trichloropropane	21.3	20.0	106	83-123
trans-1,4-Dichloro-2-butene	17.8	20.0	89	53-143
1,3-Dichlorobenzene	20.5	20.0	103	83-112
1,4-Dichlorobenzene	20.8	20.0	104	83-113
1,2-Dichlorobenzene	21.2	20.0	106	84-115
1,2-Dibromo-3-chloropropane (DBCP	23.7	20.0	119	62-123
1,2,4-Trichlorobenzene	22.7	20.0	113	72-123
Hexachlorobutadiene	21.5	20.0	107	73-140
Naphthalene	27.4	20.0	137 *	59-135

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
L-2	J0805543-001	117
L-3	J0805543-003	111
Method Blank	JWG0804358-4	132
Lab Control Sample	JWG0804358-3	131

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Extracted: 11/16/2008
Date Analyzed: 11/18/2008

Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804358

	Lab Control Sample JWG0804358-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
1,2-Dibromoethane (EDB)	0.322	0.250	129	70-130
1,2-Dibromo-3-chloropropane (DBCP	0.303	0.250	121	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 3510C
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
L-2	J0805543-001	26	21	64	49	62	39
L-3	J0805543-003	24	24	57	40	53	28
Method Blank	JWG0804427-1	25	20	68	55	74	73
Lab Control Sample	JWG0804427-2	28	21	69	64	81	72

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	10-77	Sur5 = 2,4,6-Tribromophenol	30-143
Sur2 = Phenol-d6	10-51	Sur6 = Terphenyl-d14	23-165
Sur3 = Nitrobenzene-d5	32-106		
Sur4 = 2-Fluorobiphenyl	30-102		

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/18/2008
Sample Matrix:	Water	**Date Analyzed:**	11/19/2008

Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8270C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804427

	Lab Control Sample JWG0804427-2 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Phenol	15.4	50.0	31	12-54
Bis(2-chloroethyl) Ether	29.8	50.0	60	41-99
2-Chlorophenol	26.7	50.0	53	35-101
1,3-Dichlorobenzene	23.5	50.0	47	30-119
1,4-Dichlorobenzene	24.6	50.0	49	31-119
1,2-Dichlorobenzene	26.1	50.0	52	32-123
Bis(2-chloroisopropyl) Ether	28.9	50.0	58	31-94
Benzyl alcohol	25.8	50.0	52	32-110
2-Methylphenol	25.9	50.0	52	21-100
Hexachloroethane	25.6	50.0	51	19-113
N-Nitrosodi-n-propylamine	37.8	50.0	76	43-103
4-Methylphenol	51.8	75.0	69	15-93
Nitrobenzene	33.7	50.0	67	36-116
Isophorone	39.5	50.0	79	46-106
2-Nitrophenol	30.8	50.0	62	40-120
2,4-Dimethylphenol	32.3	50.0	65	38-110
bis(2-Chloroethoxy)methane	37.4	50.0	75	47-100
2,4-Dichlorophenol	36.8	50.0	74	36-117
1,2,4-Trichlorobenzene	26.8	50.0	54	50-120
Naphthalene	27.4	50.0	55	44-97
4-Chloroaniline	26.8	50.0	54	39-110
Hexachlorobutadiene	25.1	50.0	50	20-110
4-Chloro-3-methylphenol	37.9	50.0	76	36-117
2-Methylnaphthalene	28.4	50.0	57	46-110
Hexachlorocyclopentadiene	22.1	50.0	44	23-115
2,4,6-Trichlorophenol	36.4	50.0	73	41-115
2,4,5-Trichlorophenol	38.3	50.0	77	47-113
2-Chloronaphthalene	30.2	50.0	60	47-106
2-Nitroaniline	35.2	50.0	70	33-94
Acenaphthylene	32.6	50.0	65	45-99
Dimethyl Phthalate	38.5	50.0	77	32-119
2,6-Dinitrotoluene	35.4	50.0	71	55-121
Acenaphthene	31.7	50.0	63	42-106
3-Nitroaniline	27.0	50.0	54	25-91
2,4-Dinitrophenol	34.5	50.0	69	27-128
Dibenzofuran	31.8	50.0	64	49-103

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/18/2008
Sample Matrix:	Water	**Date Analyzed:**	11/19/2008

Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8270C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804427

	Lab Control Sample JWG0804427-2 Lab Control Spike				
Analyte Name	**Result**	**Expected**	**%Rec**		**%Rec Limits**
4-Nitrophenol	12.6	50.0	25		10-86
2,4-Dinitrotoluene	36.6	50.0	73		54-121
2,3,4,6-Tetrachlorophenol	45.5	50.0	91		50-150
Fluorene	33.2	50.0	66		54-97
4-Chlorophenyl Phenyl Ether	39.2	50.0	78		53-108
Diethyl Phthalate	36.0	50.0	72		56-108
4-Nitroaniline	32.9	50.0	66		44-102
2-Methyl-4,6-dinitrophenol	41.5	50.0	83		46-117
N-Nitrosodiphenylamine	16.8	50.0	34		30-122
4-Bromophenyl Phenyl Ether	43.1	50.0	86		63-123
Hexachlorobenzene	36.6	50.0	73		55-110
Pentachlorophenol	34.5	50.0	69		44-120
Phenanthrene	32.7	50.0	65		52-110
Anthracene	32.7	50.0	65		52-104
Di-n-butyl Phthalate	34.4	50.0	69		57-118
Fluoranthene	34.8	50.0	70		52-110
Pyrene	36.9	50.0	74		53-110
Butyl Benzyl Phthalate	34.5	50.0	69		47-117
3,3'-Dichlorobenzidine	30.7	50.0	61		32-112
Benz(a)anthracene	34.1	50.0	68		49-114
Chrysene	33.8	50.0	68		50-113
Bis(2-ethylhexyl) Phthalate	36.1	50.0	72		48-127
Di-n-octyl Phthalate	34.6	50.0	69		35-139
Benzo(b)fluoranthene	26.9	50.0	54	*	56-110
Benzo(k)fluoranthene	38.8	50.0	78		48-110
Benzo(a)pyrene	29.1	50.0	58		56-110
Indeno(1,2,3-cd)pyrene	40.1	50.0	80		54-115
Dibenz(a,h)anthracene	38.9	50.0	78		51-125
Benzo(g,h,i)perylene	43.3	50.0	87		53-116

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543

Surrogate Recovery Summary
Organochlorine Pesticides by GC-ECD

Extraction Method: EPA 3510C
Analysis Method: 8081A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1		Sur2	
L-2	J0805543-001	8	#	4	#
L-3	J0805543-003	25	#	16	
Method Blank	JWG0804348-3	68		85	
Lab Control Sample	JWG0804348-1	68		81	
Duplicate Lab Control Sample	JWG0804348-2	52		75	

Surrogate Recovery Control Limits (%)

Sur1 =	Tetrachloro-m-xylene	32-92
Sur2 =	Decachlorobiphenyl	13-104

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543
Date Extracted: 11/12/2008
Date Analyzed: 11/20/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
Organochlorine Pesticides by GC-ECD

Extraction Method: EPA 3510C
Analysis Method: 8081A

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804348

	Lab Control Sample JWG0804348-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804348-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	0.312	0.400	78	0.266	0.400	67	56-104	16	30
gamma-BHC (Lindane)	0.316	0.400	79	0.273	0.400	68	57-101	15	30
beta-BHC	0.298	0.400	75	0.266	0.400	67	55-97	11	30
delta-BHC	0.247	0.400	62	0.220	0.400	55	31-105	12	30
Heptachlor	0.306	0.400	77	0.262	0.400	66	52-100	15	30
Aldrin	0.312	0.400	78	0.266	0.400	67	45-108	16	30
Heptachlor Epoxide	0.290	0.400	73	0.253	0.400	63	59-103	14	30
gamma-Chlordane	0.317	0.400	79	0.283	0.400	71	53-107	11	30
alpha-Chlordane	0.319	0.400	80	0.284	0.400	71	54-104	12	30
4,4'-DDE	0.327	0.400	82	0.296	0.400	74	58-114	10	30
Endosulfan I	0.321	0.400	80	0.287	0.400	72	61-104	11	30
Dieldrin	0.344	0.400	86	0.310	0.400	78	57-111	10	30
Endrin	0.302	0.400	76	0.269	0.400	67	57-117	12	30
4,4'-DDD	0.329	0.400	82	0.300	0.400	75	56-116	9	30
Endosulfan II	0.310	0.400	78	0.287	0.400	72	50-106	8	30
4,4'-DDT	0.354	0.400	89	0.324	0.400	81	41-115	9	30
Endrin Aldehyde	0.313	0.400	78	0.291	0.400	73	51-108	7	30
Methoxychlor	0.341	0.400	85	0.313	0.400	78	43-123	9	30
Endosulfan Sulfate	0.341	0.400	85	0.312	0.400	78	56-107	9	30
Endrin Ketone	0.356	0.400	89	0.330	0.400	83	46-101	8	30

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805543

Surrogate Recovery Summary
Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Extraction Method: EPA 3510C
Analysis Method: 8082

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	
L-2	J0805543-001	4	#
L-3	J0805543-003	21	#
Method Blank	JWG0804349-2	89	
Lab Control Sample	JWG0804349-1	57	

Surrogate Recovery Control Limits (%)

Sur1 = Decachlorobiphenyl 24-120

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/12/2008
Sample Matrix:	Water	**Date Analyzed:**	11/21/2008

Lab Control Spike Summary
Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8082	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804349

	Lab Control Sample JWG0804349-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Aroclor 1016	2.35	4.00	59	39-116
Aroclor 1260	2.52	4.00	63	41-118

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/21/2008
		Date Analyzed:	11/24/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS21121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	45.7	91	80 - 120	
Arsenic	EPA 3020A	6020	50.0	45.8	92	80 - 120	
Barium	EPA 3020A	6020	50.0	45.8	92	80 - 120	
Beryllium	EPA 3020A	6020	50.0	47.0	94	80 - 120	
Cadmium	EPA 3020A	6020	50.0	47.1	94	80 - 120	
Chromium	EPA 3020A	6020	50.0	48.7	97	80 - 120	
Cobalt	EPA 3020A	6020	50.0	47.9	96	80 - 120	
Copper	EPA 3020A	6020	50.0	49.4	99	80 - 120	
Iron	EPA 3010A	6010B	2000	1970	98	80 - 120	
Lead	EPA 3020A	6020	50.0	50.5	101	80 - 120	
Mercury	METHOD	7470A	5.00	5.21	104	80 - 120	
Nickel	EPA 3020A	6020	50.0	49.4	99	80 - 120	
Selenium	EPA 3020A	6020	50.0	45.2	90	80 - 120	
Silver	EPA 3020A	6020	50.0	49.6	99	80 - 120	
Thallium	EPA 3020A	6020	50.0	49.0	98	80 - 120	
Tin	EPA 3020A	6020	50.0	46.4	93	80 - 120	
Vanadium	EPA 3020A	6020	50.0	49.1	98	80 - 120	
Zinc	EPA 3020A	6020	100	90.0	90	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805543
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/21/2008
		Date Analyzed:	11/21/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS1-1121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	10.0	100	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805543
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/13-26/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805543-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	250	247	99	85-115	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.20	104	90-110	
Chloride	mg/L (ppm)	300.0	100	100	100	90-110	
Chloride	mg/L (ppm)	300.0	100	99.6	100	90-110	
Cyanide, Total	mg/L (ppm)	335.4	0.100	0.108	108	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.11	102	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	341	114	85-115	
Sulfide	mg/L (ppm)	376.1	10.7	10.7	100	85-115	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805543
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/18/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample Duplicate
Lab Code : J0805543-LCSD
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sulfide	mg/L (ppm)	376.1	10.7	10.7	100	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec
Project: JED SWDF

Service Request # J08X5543

Cooler received on 11-13-08 and opened on 11-13-08 by SM

COURIER: CAS UPS FEDEX DHL CLIENT Tracking # J 208151241 0

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C) 6.0			
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2
Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials
L-2	HNO_3	463602 (exp 8-12)	2	SM
L-3	HNO_3	I	2	

Additional comments and/or explanation of all discrepancies noted above:

All VOA vials for 8260 had pea-sized bubbles. Unpreserved VOAs.

Client approval to run samples if discrepancies noted: Date: 67

SR # : J 0805543 Date: 11-13-08 Initials: SGY

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Container	40mL G	40mL G	40mL G	40mL G	125mL P	125mL P	125mL P	125mL P	250mL P	250mL P	250mL P	250mL P	250mL P	250mL G	250mL G	500mL P	500mL P	500mL P	1L P	1L P	1L G	1L G	1L G	2oz G	4oz G	8oz G	16oz G	5g ENC	100mL P	Misc. Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4					Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
-001	3	3					1	1		1	1	1	1			1					6									
-002		3								SC 11-13-08																				
-003	3	3					1	1		1		1	1			1					6									
-004		3																												
-005										SC 11-13-08																				
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-038																														
-039																														
-040																														

Columbia Analytical Services™

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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PAGE 1 OF 1

SR # Job 5543

CAS Contact

Project Name: JED SWDF	Project Number: FQ1572
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and [redacted]

PRESERVATIVE: 0 1 0 2 3 4.5 4 0 0 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	Metals	NH3	Sulfide	Cyanide	TDS, Cl, NO3, Alk	8270	8081	8082	8151				REMARKS/ ALTERNATE DESCRIPTION
L-2		11-12-08	1320	Leachate	17	X	X	X	X	X	X	X	X	X	X	X				
Trip Blank				W	3	X														

JT

0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

Leachate effervesces when hits acid preserved bottles. I had to rinse VOA vials out w/sample leachate to remove HCl.

See QAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

X STANDARD

REQUESTED FAX DATE _____

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS

____ I. Results Only

X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

____ V. Speicalized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION

PO#

BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: [illegible]	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Trey Jordan	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-12-08/1600	Date/Time: 11-13-08 1000	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-06/20/08

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PAGE 1 OF 1

SR # J0J05543
CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and [redacted]

PRESERVATIVE: 1 0 2 3 4,5 4 0 0 0 0

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	Metals	NH3	Sulfide	Cyanide	TDS, Cl, NO3, Alk	8270	8081	8082	8151				REMARKS/ ALTERNATE DESCRIPTION
L-3		11-12-08	1440	Leachate	17	X	X	X	X	X	X	X	X	X	X	X				
Trip Blank				w	3	X														

0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Greg Jordan	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Greg Jordan	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-12-08/1600	Date/Time: 11-13-08 1000	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-06/20/08

Columbia Analytical Services
9143 Philips Highway, Suite 200
Jacksonville, FL 32256
Tel 904-739-2277
Fax 904-739-2011

Appendix A

Subcontracted Analytical Results

Environmental Conservation Laboratories, Inc.
10775 Central Port Drive
Orlando FL, 32824
Phone: 407.826.5314 FAX: 407.850.6945
www.encolabs.com

Friday, November 21, 2008

Columbia Analytical Svcs. (CO009)

Attn: Craig Myers

9143 Philips Highway, Suite 200

Jacksonville, FL 32256

RE: Laboratory Results for
Project Number: J0805543, Project Name/Desc: J0805543
ENCO Workorder: A805835

Dear Craig Myers,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Saturday, November 15, 2008.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Orlando. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

David M. Camacho

David Camacho For Ronald Wambles

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 8.

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: L-2	Lab ID: A805835-01	Sampled: 11/12/08 13:20	Received: 11/15/08 08:00

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8151A	11/19/08	12/27/08	11/17/08	19:38	11/20/2008 22:20

Client ID: L-3	Lab ID: A805835-02	Sampled: 11/12/08 14:40	Received: 11/15/08 08:00

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8151A	11/19/08	12/27/08	11/17/08	19:38	11/20/2008 22:58

SAMPLE DETECTION SUMMARY

No positive results detected.

www.encolabs.com

ANALYTICAL RESULTS

Description: L-2
Matrix: Ground Water
Project: J0805543

Lab Sample ID: A805835-01
Sampled: 11/12/08 13:20
Sampled By:

Received: 11/15/08 08:00
Work Order: A805835

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.080	U	ug/L	1	0.080	0.50	8K17021	EPA 8151A	11/20/08 22:20	RC	
2,4,5-TP (Silvex) [93-72-1] ^	0.087	U	ug/L	1	0.087	0.50	8K17021	EPA 8151A	11/20/08 22:20	RC	
2,4-D [94-75-7] ^	0.13	U	ug/L	1	0.13	0.50	8K17021	EPA 8151A	11/20/08 22:20	RC	
Dinoseb [88-85-7] ^	0.10	U	ug/L	1	0.10	0.50	8K17021	EPA 8151A	11/20/08 22:20	RC	
Pentachlorophenol [87-86-5] ^	0.056	U	ug/L	1	0.056	0.50	8K17021	EPA 8151A	11/20/08 22:20	RC	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*2.5*	*1*	*2.00*	*125 %*	*77-191*	*8K17021*	*EPA 8151A*	*11/20/08 22:20*	*RC*	

www.encolabs.com

Description: L-3
Matrix: Ground Water
Project: J0805543

Lab Sample ID: A805835-02
Sampled: 11/12/08 14:40
Sampled By:

Received: 11/15/08 08:00
Work Order: A805835

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.080	U	ug/L	1	0.080	0.50	8K17021	EPA 8151A	11/20/08 22:58	RC	
2,4,5-TP (Silvex) [93-72-1] ^	0.087	U	ug/L	1	0.087	0.50	8K17021	EPA 8151A	11/20/08 22:58	RC	
2,4-D [94-75-7] ^	0.13	U	ug/L	1	0.13	0.50	8K17021	EPA 8151A	11/20/08 22:58	RC	
Dinoseb [88-85-7] ^	0.10	U	ug/L	1	0.10	0.50	8K17021	EPA 8151A	11/20/08 22:58	RC	
Pentachlorophenol [87-86-5] ^	0.056	U	ug/L	1	0.056	0.50	8K17021	EPA 8151A	11/20/08 22:58	RC	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*2.4*	*1*	*2.00*	*120 %*	*77-191*	*8K17021*	*EPA 8151A*	*11/20/08 22:58*	*RC*	

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

Batch 8K17021 - EPA 3510C

Blank (8K17021-BLK1) Prepared: 11/17/2008 19:38 Analyzed: 11/20/2008 12:59

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	0.13	U	0.50	ug/L							
Pentachlorophenol	0.056	U	0.50	ug/L							
2,4,5-TP (Silvex)	0.087	U	0.50	ug/L							
2,4,5-T [2C]	0.080	U	0.50	ug/L							
Dinoseb [2C]	0.10	U	0.50	ug/L							
Surrogate: 2,4-DCAA	*2.0*			*ug/L*	*2.00*		*102*	*77-191*			

LCS (8K17021-BS1) Prepared: 11/17/2008 19:38 Analyzed: 11/20/2008 13:37

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	1.8		0.50	ug/L	2.00		88	85-140			
2,4,5-TP (Silvex)	1.9		0.50	ug/L	2.00		96	74-177			
Surrogate: 2,4-DCAA	*2.1*			*ug/L*	*2.00*		*104*	*77-191*			

Matrix Spike (8K17021-MS1) Prepared: 11/17/2008 19:38 Analyzed: 11/20/2008 14:14

Source: A805838-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	1.8		0.50	ug/L	2.00	0.13 U	92	85-140			
2,4,5-TP (Silvex)	2.0		0.50	ug/L	2.00	0.087 U	99	74-177			
Surrogate: 2,4-DCAA	*2.0*			*ug/L*	*2.00*		*98*	*77-191*			

FLAGS/NOTES AND DEFINITIONS

PQL	PQL: Practical Quantitation Limit.
B	Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
I	The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
J	Estimated value. The associated sample note or project narrative indicate the causative reason.
K	Off-scale low; Actual value is known to be less than the value given.
L	Off-scale high; Actual value is known to be greater than value given.
M	Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample exceeded the accepted holding time.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.

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Columbia Analytical Services, Inc. Chain of Custody

9143 Philips Highway • Jacksonville, FL 32256 • 904-739-2277 • FAX 904-739-2011

CAS Contact: Craig Myers

Project Number: J0805543
Project Manager: Craig Myers

Lab Code	Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Lab ID	HFRB 8151A
J0805543-001	L-2	2	Water	11/12/08	1320	~~L1-AB~~ ENCO	X
J0805543-003	L-3	1	Water	11/12/08	1340	~~L1-AB~~ ENCO	X

Test Comments

HFRB - 8151A J0805543-001,3 Report Appendix B Only
Send to ENCO fax

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
PLEASE SEND RESULTS TO MANDY SULLIVAN	RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ✓ STANDARD Requested FAX Date Requested Report Date 11/26/08	I. Results Only ✓ II. Results + QC Summaries III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data POL/MDL/J Y EDD	PO# J0805543 Bill to

Relinquished By: [signature] 11-14-08 950 Received By: [signature] 11/14/08 Airbill Number A805835

GM 11.14.8 950 C-414,10 C-317,20

Page 1

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

December 01, 2008

Service Request No: J0805544

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED Waste Facility LF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 13, 2008. For your reference, these analyses have been assigned our service request number **J0805544**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805544
Project:	JED SWDF	**Date Received:**	11/13/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Six water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/13/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. No problems were observed.

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total and Dissolved Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Approved by Craig R Mu **Date** 12/1/08

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA Methods. No problems were observed.

Approved by _____ **Date** 12/1/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512

Service Request: J0805544

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805544-001	MW-19A	11/12/08	09:55
J0805544-002	MW-19B	11/12/08	10:15
J0805544-003	MW-19C	11/12/08	12:10
J0805544-004	MW-18A	11/12/08	08:20
J0805544-005	MW-18B	11/12/08	08:00
J0805544-006	MW-18C	11/12/08	09:10
J0805544-007	Trip Blank	11/12/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-19A
Lab Code: J0805544-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-19A
Lab Code: J0805544-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	95	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/15/08	Acceptable
Dibromofluoromethane	99	82-116	11/15/08	Acceptable
Toluene-d8	107	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-19B
Lab Code: J0805544-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	**3.7**	I	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	**2.0**		1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-19B
Lab Code: J0805544-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	**2.0**		1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	95	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/15/08	Acceptable
Dibromofluoromethane	99	82-116	11/15/08	Acceptable
Toluene-d8	107	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-19C
Lab Code: J0805544-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-19C
Lab Code: J0805544-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	94	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/15/08	Acceptable
Dibromofluoromethane	99	82-116	11/15/08	Acceptable
Toluene-d8	108	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-18A
Lab Code: J0805544-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-18A
Lab Code: J0805544-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/15/08	Acceptable
Dibromofluoromethane	99	82-116	11/15/08	Acceptable
Toluene-d8	107	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-18B
Lab Code: J0805544-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	**16**		1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-18B
Lab Code: J0805544-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	95	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	91	75-120	11/15/08	Acceptable
Dibromofluoromethane	99	82-116	11/15/08	Acceptable
Toluene-d8	107	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-18C
Lab Code: J0805544-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-18C
Lab Code: J0805544-006

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	95	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/15/08	Acceptable
Dibromofluoromethane	99	82-116	11/15/08	Acceptable
Toluene-d8	107	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805544-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Trip Blank
Lab Code: J0805544-007

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	94	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	93	75-120	11/15/08	Acceptable
Dibromofluoromethane	100	82-116	11/15/08	Acceptable
Toluene-d8	107	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804373-2

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
Vinyl Chloride	ND	U	1.0	0.25	1	11/15/08	11/15/08	JWG0804373	
Bromomethane	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroethane	ND	U	5.0	0.19	1	11/15/08	11/15/08	JWG0804373	
Trichlorofluoromethane	ND	U	20	0.25	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/15/08	11/15/08	JWG0804373	
Acetone	ND	U	50	2.4	1	11/15/08	11/15/08	JWG0804373	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/15/08	11/15/08	JWG0804373	
Carbon Disulfide	ND	U	10	0.84	1	11/15/08	11/15/08	JWG0804373	
Methylene Chloride	ND	U	5.0	0.72	1	11/15/08	11/15/08	JWG0804373	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/15/08	11/15/08	JWG0804373	
Acrylonitrile	ND	U	10	0.59	1	11/15/08	11/15/08	JWG0804373	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/15/08	11/15/08	JWG0804373	
Vinyl Acetate	ND	U	10	0.60	1	11/15/08	11/15/08	JWG0804373	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
2-Butanone (MEK)	ND	U	10	0.56	1	11/15/08	11/15/08	JWG0804373	
Bromochloromethane	ND	U	5.0	0.14	1	11/15/08	11/15/08	JWG0804373	
Chloroform	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Benzene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/15/08	11/15/08	JWG0804373	
Dibromomethane	ND	U	5.0	0.12	1	11/15/08	11/15/08	JWG0804373	
Bromodichloromethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/15/08	11/15/08	JWG0804373	
Toluene	ND	U	1.0	0.52	1	11/15/08	11/15/08	JWG0804373	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/15/08	11/15/08	JWG0804373	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/15/08	11/15/08	JWG0804373	
2-Hexanone	ND	U	25	0.36	1	11/15/08	11/15/08	JWG0804373	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804373-2

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromochloromethane	ND	U	1.0	0.11	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/15/08	11/15/08	JWG0804373	
Chlorobenzene	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Ethylbenzene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
m,p-Xylenes	ND	U	2.0	0.22	1	11/15/08	11/15/08	JWG0804373	
o-Xylene	ND	U	1.0	0.10	1	11/15/08	11/15/08	JWG0804373	
Styrene	ND	U	1.0	0.051	1	11/15/08	11/15/08	JWG0804373	
Bromoform	ND	U	2.0	0.12	1	11/15/08	11/15/08	JWG0804373	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/15/08	11/15/08	JWG0804373	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/15/08	11/15/08	JWG0804373	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/15/08	11/15/08	JWG0804373	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/15/08	11/15/08	JWG0804373	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/15/08	11/15/08	JWG0804373	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/15/08	11/15/08	JWG0804373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	93	71-122	11/15/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/15/08	Acceptable
Dibromofluoromethane	98	82-116	11/15/08	Acceptable
Toluene-d8	108	88-117	11/15/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-19A	**Units:**	ug/L
Lab Code:	J0805544-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/19/08	JWG0804359	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/19/08	JWG0804359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	115	77-150	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-19B	**Units:**	ug/L
Lab Code:	J0805544-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/19/08	JWG0804359	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/19/08	JWG0804359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	118	77-150	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-19C	**Units:**	ug/L
Lab Code:	J0805544-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/19/08	JWG0804359	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/19/08	JWG0804359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	116	77-150	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-18A	**Units:**	ug/L
Lab Code:	J0805544-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/19/08	JWG0804359	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/19/08	JWG0804359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	125	77-150	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-18B	**Units:**	ug/L
Lab Code:	J0805544-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/19/08	JWG0804359	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/19/08	JWG0804359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	122	77-150	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Collected:**	11/12/2008
Sample Matrix:	Water	**Date Received:**	11/13/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	MW-18C	**Units:**	ug/L
Lab Code:	J0805544-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/19/08	JWG0804359	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/19/08	JWG0804359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	120	77-150	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804359-3	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804359	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	131	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: MW-19A
Lab Code: J0805544-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/25/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/25/2008	1.9	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/25/2008	20	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/25/2008	0.14	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/25/2008	5.5	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	1.8	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	2230	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	1.0	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.09	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	1.0	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/25/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	0.2	i
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/25/2008	8.4	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/25/2008	7	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: MW-19B
Lab Code: J0805544-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/25/2008	0.8	i
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/25/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/25/2008	27	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/25/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/25/2008	1.4	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	1.0	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	752	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	1.3	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.10	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/25/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/25/2008	1.9	i
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/25/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: MW-19C
Lab Code: J0805544-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/25/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/25/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/25/2008	65	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	0.5	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/25/2008	0.17	i
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/25/2008	4.9	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	0.7	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	1650	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	0.7	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.09	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	0.6	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/25/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/25/2008	6.4	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/25/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: MW-18A
Lab Code: J0805544-004

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/25/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/25/2008	1.3	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/25/2008	7.4	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/25/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/25/2008	1.8	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	0.3	i
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	1.1	i
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	992	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	2.1	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.10	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	1.0	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/25/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/25/2008	4.9	i
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/25/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: MW-18B
Lab Code: J0805544-005

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/25/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/25/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/25/2008	11	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/25/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/25/2008	1.2	i
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	462	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	0.4	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.08	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/25/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/25/2008	1.5	i
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/25/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Total Metals

Sample Name: MW-18C
Lab Code: J0805544-006

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/25/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/25/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/25/2008	41	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/25/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/25/2008	2.1	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	U	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/21/2008	11/21/2008	1260	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	0.4	i
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.08	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	0.4	i
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/25/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/25/2008	2.8	i
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/25/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER		

Total Metals

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	MB31121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	11/25/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	11/25/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	11/25/2008	1.0	i
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	11/25/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	11/25/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/21/2008	11/21/2008	U	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.08	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	11/25/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	11/25/2008	U	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	11/25/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	11/25/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	11/25/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	11/25/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	11/12/2008
Project Number:	FQ1512	**Date Received:**	11/13/2008
Matrix:	WATER		

Total Metals
Sodium

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-19A	J0805544-001	0.50	0.02	1.0	11/21/2008	11/21/2008	11	
MW-19B	J0805544-002	0.50	0.02	1.0	11/21/2008	11/21/2008	16	
MW-19C	J0805544-003	0.50	0.02	1.0	11/21/2008	11/21/2008	10	
MW-18A	J0805544-004	0.50	0.02	1.0	11/21/2008	11/21/2008	7.5	
MW-18B	J0805544-005	0.50	0.02	1.0	11/21/2008	11/21/2008	17	
MW-18C	J0805544-006	0.50	0.02	1.0	11/21/2008	11/21/2008	12	
Method Blank	MB1-1121	0.50	0.02	1.0	11/21/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: 11/12/2008
Date Received: 11/13/2008

Dissolved Metals

Sample Name: MW-19C
Lab Code: J0805544-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/20/2008	11/21/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/20/2008	11/21/2008	U	
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/20/2008	11/21/2008	29	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/20/2008	11/21/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/20/2008	11/21/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Iron	EPA 3005A	6010B	50	4.0	1.0	11/20/2008	11/21/2008	924	
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.09	i
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/20/2008	11/21/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/20/2008	11/25/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/20/2008	11/21/2008	U	
Zinc	EPA 3005A	6020	10	4	1.0	11/20/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED Waste Facility LF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805544
Date Collected: N/A
Date Received: N/A

Dissolved Metals

Sample Name: Method Blank
Lab Code: MB5-1120

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3005A	6020	2.0	0.4	1.0	11/20/2008	11/21/2008	U	
Arsenic	EPA 3005A	6020	0.50	0.20	1.0	11/20/2008	11/21/2008	U	
Barium	EPA 3005A	6020	2.0	0.5	1.0	11/20/2008	11/21/2008	U	
Beryllium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Cadmium	EPA 3005A	6020	0.50	0.12	1.0	11/20/2008	11/21/2008	U	
Chromium	EPA 3005A	6020	2.0	0.8	1.0	11/20/2008	11/21/2008	U	
Cobalt	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Copper	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Iron	EPA 3005A	6010B	50.0	4.0	1.0	11/20/2008	11/21/2008	5.5	i
Lead	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.08	i
Nickel	EPA 3005A	6020	2.0	0.3	1.0	11/20/2008	11/21/2008	U	
Selenium	EPA 3005A	6020	2.0	0.7	1.0	11/20/2008	11/21/2008	U	
Silver	EPA 3005A	6020	0.50	0.08	1.0	11/20/2008	11/21/2008	U	
Thallium	EPA 3005A	6020	1.0	0.2	1.0	11/20/2008	11/21/2008	U	
Vanadium	EPA 3005A	6020	5.0	1.2	1.0	11/20/2008	11/21/2008	U	
Zinc	EPA 3005A	6020	10	4	1.0	11/20/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	11/12/2008
Project Number:	FQ1512	**Date Received:**	11/13/2008
Matrix:	WATER		

Dissolved Metals
Sodium

Prep Method:	EPA 3005A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-19C	J0805544-003	0.50	0.02	1.0	11/20/2008	11/21/2008	10	
Method Blank	MB4-1120	0.50	0.02	1.0	11/20/2008	11/21/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : MW-19A
Lab Code : J0805544-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/18/08 12:01	3.3	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 03:46	12	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 05:16	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	230	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : MW-19B
Lab Code : J0805544-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.11	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 03:46	27	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 06:01	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	34	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : MW-19C
Lab Code : J0805544-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.16	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 03:46	18	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 06:16	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	72	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : MW-18A
Lab Code : J0805544-004
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	1.2	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 03:46	12	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 06:31	0.16	i
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	87	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : MW-18B
Lab Code : J0805544-005
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.032	i
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 03:46	23	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 06:46	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	69	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08

Inorganic Parameters

Sample Name : MW-18C
Lab Code : J0805544-006
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	0.13	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 03:46	21	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 07:01	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	73	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805544-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	U	
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/18/08 12:01	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 03:46	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 03:46	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/17/08 18:00	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
MW-19A	J0805544-001	95	92	99	107
MW-19B	J0805544-002	95	94	99	107
MW-19C	J0805544-003	94	94	99	108
MW-18A	J0805544-004	96	92	99	107
MW-18B	J0805544-005	95	91	99	107
MW-18C	J0805544-006	95	92	99	107
Trip Blank	J0805544-007	94	93	100	107
Method Blank	JWG0804373-2	93	92	98	108
Lab Control Sample	JWG0804373-1	94	92	98	105

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Extracted:**	11/15/2008
Sample Matrix:	Water	**Date Analyzed:**	11/15/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804373

	Lab Control Sample JWG0804373-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Chloromethane	21.9	20.0	110	67-135
Vinyl Chloride	21.4	20.0	107	78-132
Bromomethane	21.2	20.0	106	79-130
Chloroethane	19.8	20.0	99	74-126
Trichlorofluoromethane	20.9	20.0	105	74-134
1,1-Dichloroethene	20.6	20.0	103	78-130
Acetone	102	100	102	67-133
Iodomethane (Methyl Iodide)	99.2	100	99	68-134
Carbon Disulfide	98.8	100	99	76-138
Methylene Chloride	19.7	20.0	98	72-124
trans-1,2-Dichloroethene	20.4	20.0	102	77-124
Acrylonitrile	103	100	103	77-127
1,1-Dichloroethane	20.3	20.0	101	80-128
Vinyl Acetate	94.6	100	95	61-148
cis-1,2-Dichloroethene	20.7	20.0	103	80-126
2-Butanone (MEK)	102	100	102	73-127
Bromochloromethane	21.0	20.0	105	79-129
Chloroform	20.1	20.0	101	83-124
1,1,1-Trichloroethane (TCA)	20.6	20.0	103	79-124
Carbon Tetrachloride	21.1	20.0	106	81-125
Benzene	20.0	20.0	100	79-119
1,2-Dichloroethane (EDC)	19.8	20.0	99	80-124
Trichloroethene (TCE)	20.0	20.0	100	76-124
1,2-Dichloropropane	20.3	20.0	102	79-123
Dibromomethane	20.9	20.0	104	83-123
Bromodichloromethane	20.7	20.0	103	81-123
cis-1,3-Dichloropropene	20.1	20.0	100	86-123
4-Methyl-2-pentanone (MIBK)	101	100	101	72-136
Toluene	20.2	20.0	101	86-117
trans-1,3-Dichloropropene	20.6	20.0	103	83-124
1,1,2-Trichloroethane	20.7	20.0	103	86-114
Tetrachloroethene (PCE)	20.2	20.0	101	80-121
2-Hexanone	103	100	103	71-138
Dibromochloromethane	21.5	20.0	107	82-121
1,2-Dibromoethane (EDB)	20.5	20.0	102	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project:	JED Waste Facility LF/FQ1512	**Date Extracted:**	11/15/2008
Sample Matrix:	Water	**Date Analyzed:**	11/15/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804373

	Lab Control Sample JWG0804373-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Chlorobenzene	19.9	20.0	100	86-113
1,1,1,2-Tetrachloroethane	20.7	20.0	103	85-117
Ethylbenzene	20.3	20.0	102	90-118
m,p-Xylenes	40.5	40.0	101	86-121
o-Xylene	20.3	20.0	101	89-119
Styrene	20.2	20.0	101	89-122
Bromoform	22.1	20.0	111	68-129
1,1,2,2-Tetrachloroethane	20.1	20.0	101	83-120
1,2,3-Trichloropropane	21.4	20.0	107	83-123
1,4-Dichlorobenzene	19.6	20.0	98	83-113
trans-1,4-Dichloro-2-butene	19.1	20.0	95	53-143
1,2-Dichlorobenzene	19.8	20.0	99	84-115
1,2-Dibromo-3-chloropropane (DBCP	20.9	20.0	105	62-123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
MW-19A	J0805544-001	115
MW-19B	J0805544-002	118
MW-19C	J0805544-003	116
MW-18A	J0805544-004	125
MW-18B	J0805544-005	122
MW-18C	J0805544-006	120
Method Blank	JWG0804359-3	131
Lab Control Sample	JWG0804359-1	120
Duplicate Lab Control Sample	JWG0804359-2	128

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED Waste Facility LF/FQ1512
Sample Matrix: Water

Service Request: J0805544
Date Extracted: 11/16/2008
Date Analyzed: 11/18/2008

Lab Control Spike/Duplicate Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804359

	Lab Control Sample JWG0804359-1 Lab Control Spike			Duplicate Lab Control Sample JWG0804359-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2-Dibromoethane (EDB)	0.272	0.250	109	0.313	0.250	125	70-130	14	20
1,2-Dibromo-3-chloropropane (DBCP	0.293	0.250	117	0.292	0.250	117	70-130	0	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	11/12/2008
Project Number:	FQ1512	**Date Received:**	11/13/2008
Matrix:	WATER	**Date Extracted:**	11/21/2008
		Date Analyzed:	11/25/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	MW-19A		**Units:**	ug/L
Lab Code:	J0805544-001	J0805544-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Antimony	EPA 3020	6020	2.0	50.0	50.0	U	49.8	50.6	100	101	2	75 - 125	
Arsenic	EPA 3020	6020	0.50	50.0	50.0	1.95	48.30	47.70	93	92	1	75 - 125	
Barium	EPA 3020	6020	2.0	50.0	50.0	19.7	67.2	68.1	95	97	1	75 - 125	
Beryllium	EPA 3020	6020	1.0	50.0	50.0	0.2	46.3	44.7	92	89	4	75 - 125	
Cadmium	EPA 3020	6020	0.50	50.0	50.0	0.14	45.10	44.80	90	89	1	75 - 125	
Chromium	EPA 3020	6020	2.0	50.0	50.0	5.5	55.2	54.4	99	98	1	75 - 125	
Cobalt	EPA 3020	6020	1.0	50.0	50.0	0.3	49.2	48.2	98	96	2	75 - 125	
Copper	EPA 3020	6020	2.0	50.0	50.0	1.8	47.2	45.8	91	88	3	75 - 125	
Lead	EPA 3020	6020	1.0	50.0	50.0	1.0	49.7	49.3	97	97	1	75 - 125	
Nickel	EPA 3020	6020	2.0	50.0	50.0	1.0	47.9	47.8	94	94	<1	75 - 125	
Selenium	EPA 3020	6020	2.0	50.0	50.0	U	42.2	41.5	84	83	2	75 - 125	
Silver	EPA 3020	6020	0.50	50.0	50.0	U	43.70	44.40	87	89	2	75 - 125	
Thallium	EPA 3020	6020	1.0	50.0	50.0	0.2	48.6	48.6	97	97	<1	75 - 125	
Vanadium	EPA 3020	6020	5.0	50.0	50.0	8.4	58.7	57.5	101	98	2	75 - 125	
Zinc	EPA 3020	6020	10.0	100	100	6.5	94.1	93.3	88	87	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/21/2008
		Date Analyzed:	11/25/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS31121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	49.2	98	80 - 120	
Arsenic	EPA 3020A	6020	50.0	47.0	94	80 - 120	
Barium	EPA 3020A	6020	50.0	48.8	98	80 - 120	
Beryllium	EPA 3020A	6020	50.0	43.7	87	80 - 120	
Cadmium	EPA 3020A	6020	50.0	46.3	93	80 - 120	
Chromium	EPA 3020A	6020	50.0	49.1	98	80 - 120	
Cobalt	EPA 3020A	6020	50.0	48.4	97	80 - 120	
Copper	EPA 3020A	6020	50.0	47.8	96	80 - 120	
Iron	EPA 3010A	6010B	2000	1970	98	80 - 120	
Lead	EPA 3020A	6020	50.0	48.6	97	80 - 120	
Mercury	METHOD	7470A	5.00	5.21	104	80 - 120	
Nickel	EPA 3020A	6020	50.0	48.5	97	80 - 120	
Selenium	EPA 3020A	6020	50.0	43.6	87	80 - 120	
Silver	EPA 3020A	6020	50.0	45.4	91	80 - 120	
Thallium	EPA 3020A	6020	50.0	47.5	95	80 - 120	
Vanadium	EPA 3020A	6020	50.0	49.1	98	80 - 120	
Zinc	EPA 3020A	6020	100	92.4	92	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/21/2008
		Date Analyzed:	11/21/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS1-1121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	10.0	100	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/20/2008
		Date Analyzed:	11/21/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS5-1120	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3005A	6020	50.0	50.5	101	80 - 120	
Arsenic	EPA 3005A	6020	50.0	49.2	98	80 - 120	
Barium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Beryllium	EPA 3005A	6020	50.0	47.2	94	80 - 120	
Cadmium	EPA 3005A	6020	50.0	47.2	94	80 - 120	
Chromium	EPA 3005A	6020	50.0	47.8	96	80 - 120	
Cobalt	EPA 3005A	6020	50.0	48.0	96	80 - 120	
Copper	EPA 3005A	6020	50.0	47.6	95	80 - 120	
Iron	EPA 3005A	6010B	2000	1910	96	80 - 120	
Lead	EPA 3005A	6020	50.0	48.4	97	80 - 120	
Mercury	METHOD	7470A	5.00	5.21	104	80 - 120	
Nickel	EPA 3005A	6020	50.0	48.4	97	80 - 120	
Selenium	EPA 3005A	6020	50.0	49.7	99	80 - 120	
Silver	EPA 3005A	6020	50.0	51.7	103	80 - 120	
Thallium	EPA 3005A	6020	50.0	47.6	95	80 - 120	
Vanadium	EPA 3005A	6020	50.0	47.9	96	80 - 120	
Zinc	EPA 3005A	6020	100	101.0	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805544
Project Name:	JED Waste Facility LF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/20/2008
		Date Analyzed:	11/21/2008

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS4-1120	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3005A	6010B	10.0	10.1	101	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08
Date Extracted : NA
Date Analyzed : 11/14-18/08

Duplicate Summary
Inorganic Parameters

Sample Name : MW-19A
Lab Code : J0805544-001DUP
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	3.3	3.3	3.3	<1	
Chloride	mg/L (ppm)	300.0	0.2	12	12	12	<1	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	U	U	U	-	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED Waste Facility LF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805544
Date Collected : 11/12/08
Date Received : 11/13/08
Date Extracted : NA
Date Analyzed : 11/14-18/08

Matrix Spike Summary
Inorganic Parameters

Sample Name : MW-19A
Lab Code : J0805544-001MS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	5.00	3.3	7.95	93	90-110	
Chloride	mg/L (ppm)	300.0	0.2	100	12	110	98	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	5.0	U	5.26	105	90-110	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805544
Project Name :	JED Waste Facility LF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/14-18/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805544-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.20	104	90-110	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.31	106	90-110	
Chloride	mg/L (ppm)	300.0	100	101	101	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.24	105	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	276	92	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec Service Request # Job 5544

Project: JED SWDF

Cooler received on 11.13.08 and opened on 11.13.08 by SKY

COURIER: CAS (UPS) FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	(Yes)	No	N/A
2	Were seals intact, signed and dated?	(Yes)	No	N/A
3	Were custody papers properly filled out?	(Yes)	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C) 4.7°C			
5	Correct Temperature?	(Yes)	No	N/A
6	Were Ice or Ice Packs present	(Yes)	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	(Yes)	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	(Yes)	No	N/A
9	Did all bottle labels and tags agree with custody papers?	(Yes)	No	N/A
10	Were the correct bottles used for the tests indicated?	(Yes)	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	(Yes)	No	N/A

(HNO3 pH<2) (H2SO4 pH<2) ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	(Yes)	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	(Yes)	No	N/A
14	Where did the bottles originate?	(CAS)	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date: 61

SR #: J 0805544 Date: 11·13·08 Initials: SLY

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
-001	3	3					1	1	1																					
-002	3	3					1	1	1																					
-003	3	3					1	2	1																					
-004	3	3					1	1	1																					
-005	3	3					1	1	1																					
-006	3	3					1	1	1																					
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-040																														

Columbia Analytical Services INC.
An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR # Jo 505544
CAS Contact

Project Name: JED SWDF	Project Number: FQ1572
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and [redacted]

PRESERVATIVE: 1 0 3 2 0 2

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260	8011	NH3	Metals	TS, Cl, NO3	Dissolved Metals	REMARKS/ ALTERNATE DESCRIPTION
MW-19A		11-12-08	0955	GW	9	X	X	X	X	X		
MW-19B		↓	1015	↑	9	↓	↓	↓	↓	↓		
MW-19C		↓	1210	↑	10	↓	↓	↓	↓	↓	X	
MW-18A		↓	0820	↑	9	↓	↓	↓	↓	↓		
MW-18B		↓	0800	↑	9	↓	↓	↓	↓	↓		
MW-18C		↓	0910	↓	9	↓	↓	↓	↓	↓		
Trip Blank				W	3	↓						

1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE _____
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Jored Jordan	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: 11-13-08 1000	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-12-08/1530	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-01/29/08

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

December 10, 2008

Service Request No: J0805551

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 14, 2008. For your reference, these analyses have been assigned our service request number **J0805551**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/08; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/08; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/08.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0805551
Project:	JED SWDF	**Date Received:**	11/14/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Three water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/14/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Second Source Exceptions

The upper control criterion was exceeded for the following analytes in Second Source Verification (SSV) CAL1659: Ethyl Methacrylate and trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Lab Control Sample Exceptions

The spike recoveries of Isobutyl Alcohol, Ethyl Methacrylate and trans-1,4-Dichloro-2-butene for Laboratory Control Sample (LCS) JWG0804446-3 were outside the upper control criterion. The analytes in question were not detected in the associated field samples above the method reporting limits. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Elevated Method Reporting Limits

The reporting limits are elevated for all analytes in samples L-1, L-4, and L-5. The samples were diluted prior to instrumental analysis due to the foaming nature of the matrix. The reporting limits are adjusted to reflect the dilution.

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG).

Approved by Craig R Hy **Date** 12/10/08

The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

EDB and DBCP by GC-ECD

The samples were analyzed for EDB and DBCP using EPA Method 8011. No problems were observed.

Organochlorine Pesticides by GC-ECD

The samples were analyzed for Organochlorine Pesticides using EPA Method 8081. The following observations were made regarding this delivery group.

Surrogate Exceptions

The control criteria were exceeded for the following surrogates in samples L-1 and L-4 due to suspected matrix interferences: Tetrachloro-m-xylene and Decachlorobiphenyl. The samples formed a large emulsion during the extraction procedure resulting in reduced recovery. No further corrective action was appropriate.

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

PCB Aroclors by GC-ECD

The samples were analyzed for PCB Aroclors using EPA Method 8082. The following observations were made regarding this delivery group.

Surrogate Exceptions

The control criteria were exceeded for the following surrogate in samples L-1 and L-4 due to suspected matrix interferences: Decachlorobiphenyl. The samples formed a large emulsion during the extraction procedure resulting in reduced recovery. No further corrective action was appropriate.

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Semivolatile Organics by GC-MS

The samples were analyzed for Semivolatile Organics using EPA Method 8270. The following observations were made regarding this delivery group.

Approved by _____ **Date** 12/10/08

Second Source Exceptions

The control criterion was exceeded for the following analyte in Second Source Verification (SSV) CAL1652: 2-Methyl-4,6-dinitrophenol. The field sample analyzed in this sequence did not contain the analyte in question. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

Surrogate Exceptions

The control criterion for the following surrogate in sample L-5 is not applicable: 2,4,6-Tribromophenol. The analysis of the sample required a dilution, which resulted in a surrogate concentration below the Method Reporting Limit (MRL). No further corrective action was appropriate.

The control criteria were exceeded for the following surrogate in sample L-1 due to suspected matrix interferences: Terphenyl-d14. The sample formed an emulsion during the extraction procedure, preventing adequate recovery of the surrogate. No further corrective action was appropriate.

Lab Control Sample Exceptions

The spike recovery of Benzo(b)fluoranthene for Laboratory Control Sample (LCS) JWG0804427-2 was outside the lower control criterion. The analyte in question was not detected in the associated field sample. The error associated with reduced recovery equates to a potential low bias. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

Elevated Method Reporting Limits

Sample L-5 required a dilution due to the presence of elevated levels of non-target analytes. The reporting limits are adjusted to reflect the dilution.

Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. The following observations were made regarding this delivery group.

Matrix Spike Recovery Exceptions

The control criteria for matrix spike recoveries of Sodium for sample L-1 are not applicable. The analyte concentrations in the samples were significantly higher than the added spike concentrations, preventing accurate evaluation of the spike recoveries.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Approved by Craig R Mey **Date** 12/10/08

General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. The following observations were made regarding this delivery group.

Elevated Method Reporting Limits

The reporting limit is elevated for Nitrate in samples L-1, L-4, and L-5. The chromatogram indicated the presence of non-target background components. In addition, the samples had a high concentration of Chloride. The matrix interference prevented adequate resolution of the target analyte at the reporting limit.

Batch QC Notes and Discussion

Quality control samples for some parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Subcontracted Analytical Parameters

The samples were delivered to ENCO Labs in Jacksonville, FL on 11/14/08 for EPA Method 8151 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

Approved by Craig R Mg **Date** 12/10/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0805551

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0805551-001	L-1	11/13/08	08:00
J0805551-002	L-4	11/13/08	09:40
J0805551-003	L-5	11/13/08	11:00
J0805551-004	Trip Blank	11/13/08	00:00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-1
Lab Code: J0805551-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	200	2.3	10	11/19/08	11/19/08	JWG0804466	
Chloromethane	ND	U	10	1.7	10	11/19/08	11/19/08	JWG0804466	
Vinyl Chloride	ND	U	10	2.5	10	11/19/08	11/19/08	JWG0804466	
Bromomethane	ND	U	10	1.4	10	11/19/08	11/19/08	JWG0804466	
Chloroethane	ND	U	50	1.9	10	11/19/08	11/19/08	JWG0804466	
Trichlorofluoromethane	ND	U	200	2.5	10	11/19/08	11/19/08	JWG0804466	
Acrolein	ND	U	500	96	10	11/19/08	11/19/08	JWG0804466	
1,1-Dichloroethene	ND	U	10	1.6	10	11/19/08	11/19/08	JWG0804466	
Acetone	**31**	I	500	24	10	11/19/08	11/19/08	JWG0804466	
Iodomethane (Methyl Iodide)	ND	U	50	25	10	11/19/08	11/19/08	JWG0804466	
Carbon Disulfide	ND	U	100	8.4	10	11/19/08	11/19/08	JWG0804466	
Acetonitrile	ND	U	250	33	10	11/19/08	11/19/08	JWG0804466	
Allyl Chloride	ND	U	50	1.3	10	11/19/08	11/19/08	JWG0804466	
Methylene Chloride	ND	U	50	7.2	10	11/19/08	11/19/08	JWG0804466	
Acrylonitrile	ND	U	100	5.9	10	11/19/08	11/19/08	JWG0804466	
trans-1,2-Dichloroethene	ND	U	10	1.3	10	11/19/08	11/19/08	JWG0804466	
1,1-Dichloroethane	ND	U	10	5.6	10	11/19/08	11/19/08	JWG0804466	
Vinyl Acetate	ND	U	100	6.0	10	11/19/08	11/19/08	JWG0804466	
Chloroprene	ND	U	10	2.4	10	11/19/08	11/19/08	JWG0804466	
cis-1,2-Dichloroethene	ND	U	10	1.2	10	11/19/08	11/19/08	JWG0804466	
2,2-Dichloropropane	ND	U	10	2.2	10	11/19/08	11/19/08	JWG0804466	
1,1-Dichloropropene	ND	U	50	1.3	10	11/19/08	11/19/08	JWG0804466	
2-Butanone (MEK)	ND	U	100	5.6	10	11/19/08	11/19/08	JWG0804466	
Propionitrile	ND	U	250	8.7	10	11/19/08	11/19/08	JWG0804466	
Bromochloromethane	ND	U	50	1.4	10	11/19/08	11/19/08	JWG0804466	
Methacrylonitrile	ND	U	50	2.0	10	11/19/08	11/19/08	JWG0804466	
Chloroform	ND	U	10	1.0	10	11/19/08	11/19/08	JWG0804466	
1,1,1-Trichloroethane (TCA)	ND	U	10	2.1	10	11/19/08	11/19/08	JWG0804466	
Carbon Tetrachloride	ND	U	10	1.8	10	11/19/08	11/19/08	JWG0804466	
Benzene	ND	U	10	5.2	10	11/19/08	11/19/08	JWG0804466	
1,2-Dichloroethane (EDC)	ND	U	10	1.5	10	11/19/08	11/19/08	JWG0804466	
Isobutyl Alcohol	ND	U	1000	46	10	11/19/08	11/19/08	JWG0804466	
Trichloroethene (TCE)	ND	U	10	1.5	10	11/19/08	11/19/08	JWG0804466	
1,2-Dichloropropane	ND	U	10	0.57	10	11/19/08	11/19/08	JWG0804466	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-1
Lab Code: J0805551-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromomethane	ND	U	50	1.2	10	11/19/08	11/19/08	JWG0804466	
Methyl Methacrylate	ND	U	10	2.1	10	11/19/08	11/19/08	JWG0804466	
Bromodichloromethane	ND	U	10	1.0	10	11/19/08	11/19/08	JWG0804466	
cis-1,3-Dichloropropene	ND	U	10	1.2	10	11/19/08	11/19/08	JWG0804466	
4-Methyl-2-pentanone (MIBK)	ND	U	250	3.7	10	11/19/08	11/19/08	JWG0804466	
Toluene	**13**		10	5.2	10	11/19/08	11/19/08	JWG0804466	
trans-1,3-Dichloropropene	ND	U	10	1.2	10	11/19/08	11/19/08	JWG0804466	
Ethyl Methacrylate	ND	U	10	1.4	10	11/19/08	11/19/08	JWG0804466	
1,1,2-Trichloroethane	ND	U	10	2.1	10	11/19/08	11/19/08	JWG0804466	
Tetrachloroethene (PCE)	ND	U	10	2.2	10	11/19/08	11/19/08	JWG0804466	
1,3-Dichloropropane	ND	U	10	1.0	10	11/19/08	11/19/08	JWG0804466	
2-Hexanone	ND	U	250	3.6	10	11/19/08	11/19/08	JWG0804466	
Dibromochloromethane	ND	U	10	1.1	10	11/19/08	11/19/08	JWG0804466	
1,2-Dibromoethane (EDB)	ND	U	10	1.8	10	11/19/08	11/19/08	JWG0804466	
Chlorobenzene	ND	U	10	1.5	10	11/19/08	11/19/08	JWG0804466	
1,1,1,2-Tetrachloroethane	ND	U	10	1.0	10	11/19/08	11/19/08	JWG0804466	
Ethylbenzene	**27**		10	1.0	10	11/19/08	11/19/08	JWG0804466	
m,p-Xylenes	**30**		20	2.2	10	11/19/08	11/19/08	JWG0804466	
o-Xylene	**16**		10	1.0	10	11/19/08	11/19/08	JWG0804466	
Styrene	ND	U	10	0.51	10	11/19/08	11/19/08	JWG0804466	
Bromoform	ND	U	20	1.2	10	11/19/08	11/19/08	JWG0804466	
1,1,2,2-Tetrachloroethane	ND	U	10	1.5	10	11/19/08	11/19/08	JWG0804466	
1,2,3-Trichloropropane	ND	U	20	1.6	10	11/19/08	11/19/08	JWG0804466	
trans-1,4-Dichloro-2-butene	ND	U	200	11	10	11/19/08	11/19/08	JWG0804466	
1,3-Dichlorobenzene	ND	U	10	1.4	10	11/19/08	11/19/08	JWG0804466	
1,4-Dichlorobenzene	**7.5**	I	10	1.4	10	11/19/08	11/19/08	JWG0804466	
1,2-Dichlorobenzene	ND	U	10	1.7	10	11/19/08	11/19/08	JWG0804466	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	50	2.6	10	11/19/08	11/19/08	JWG0804466	
1,2,4-Trichlorobenzene	ND	U	100	3.0	10	11/19/08	11/19/08	JWG0804466	
Hexachlorobutadiene	ND	U	100	6.1	10	11/19/08	11/19/08	JWG0804466	
Naphthalene	ND	U	100	2.5	10	11/19/08	11/19/08	JWG0804466	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-1	**Units:**	ug/L
Lab Code:	J0805551-001	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	94	71-122	11/19/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/19/08	Acceptable
Dibromofluoromethane	99	82-116	11/19/08	Acceptable
Toluene-d8	105	88-117	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-4
Lab Code: J0805551-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	200	2.3	10	11/18/08	11/18/08	JWG0804446	
Chloromethane	ND	U	10	1.7	10	11/18/08	11/18/08	JWG0804446	
Vinyl Chloride	ND	U	10	2.5	10	11/18/08	11/18/08	JWG0804446	
Bromomethane	ND	U	10	1.4	10	11/18/08	11/18/08	JWG0804446	
Chloroethane	ND	U	50	1.9	10	11/18/08	11/18/08	JWG0804446	
Trichlorofluoromethane	ND	U	200	2.5	10	11/18/08	11/18/08	JWG0804446	
Acrolein	ND	U	500	96	10	11/18/08	11/18/08	JWG0804446	
1,1-Dichloroethene	ND	U	10	1.6	10	11/18/08	11/18/08	JWG0804446	
Acetone	**50**	I	500	24	10	11/18/08	11/18/08	JWG0804446	
Iodomethane (Methyl Iodide)	ND	U	50	25	10	11/18/08	11/18/08	JWG0804446	
Carbon Disulfide	ND	U	100	8.4	10	11/18/08	11/18/08	JWG0804446	
Acetonitrile	ND	U	250	33	10	11/18/08	11/18/08	JWG0804446	
Allyl Chloride	ND	U	50	1.3	10	11/18/08	11/18/08	JWG0804446	
Methylene Chloride	ND	U	50	7.2	10	11/18/08	11/18/08	JWG0804446	
Acrylonitrile	ND	U	100	5.9	10	11/18/08	11/18/08	JWG0804446	
trans-1,2-Dichloroethene	ND	U	10	1.3	10	11/18/08	11/18/08	JWG0804446	
1,1-Dichloroethane	ND	U	10	5.6	10	11/18/08	11/18/08	JWG0804446	
Vinyl Acetate	ND	U	100	6.0	10	11/18/08	11/18/08	JWG0804446	
Chloroprene	ND	U	10	2.4	10	11/18/08	11/18/08	JWG0804446	
cis-1,2-Dichloroethene	ND	U	10	1.2	10	11/18/08	11/18/08	JWG0804446	
2,2-Dichloropropane	ND	U	10	2.2	10	11/18/08	11/18/08	JWG0804446	
1,1-Dichloropropene	ND	U	50	1.3	10	11/18/08	11/18/08	JWG0804446	
2-Butanone (MEK)	ND	U	100	5.6	10	11/18/08	11/18/08	JWG0804446	
Propionitrile	ND	U	250	8.7	10	11/18/08	11/18/08	JWG0804446	
Bromochloromethane	ND	U	50	1.4	10	11/18/08	11/18/08	JWG0804446	
Methacrylonitrile	ND	U	50	2.0	10	11/18/08	11/18/08	JWG0804446	
Chloroform	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
1,1,1-Trichloroethane (TCA)	ND	U	10	2.1	10	11/18/08	11/18/08	JWG0804446	
Carbon Tetrachloride	ND	U	10	1.8	10	11/18/08	11/18/08	JWG0804446	
Benzene	**5.7**	I	10	5.2	10	11/18/08	11/18/08	JWG0804446	
1,2-Dichloroethane (EDC)	ND	U	10	1.5	10	11/18/08	11/18/08	JWG0804446	
Isobutyl Alcohol	ND	UJ	1000	46	10	11/18/08	11/18/08	JWG0804446	J(3)
Trichloroethene (TCE)	ND	U	10	1.5	10	11/18/08	11/18/08	JWG0804446	
1,2-Dichloropropane	ND	U	10	0.57	10	11/18/08	11/18/08	JWG0804446	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-4
Lab Code: J0805551-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromomethane	ND	U	50	1.2	10	11/18/08	11/18/08	JWG0804446	
Methyl Methacrylate	ND	U	10	2.1	10	11/18/08	11/18/08	JWG0804446	
Bromodichloromethane	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
cis-1,3-Dichloropropene	ND	U	10	1.2	10	11/18/08	11/18/08	JWG0804446	
4-Methyl-2-pentanone (MIBK)	ND	U	250	3.7	10	11/18/08	11/18/08	JWG0804446	
Toluene	**27**		10	5.2	10	11/18/08	11/18/08	JWG0804446	
trans-1,3-Dichloropropene	ND	U	10	1.2	10	11/18/08	11/18/08	JWG0804446	
Ethyl Methacrylate	ND	UJ	10	1.4	10	11/18/08	11/18/08	JWG0804446	J(3)
1,1,2-Trichloroethane	ND	U	10	2.1	10	11/18/08	11/18/08	JWG0804446	
Tetrachloroethene (PCE)	ND	U	10	2.2	10	11/18/08	11/18/08	JWG0804446	
1,3-Dichloropropane	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
2-Hexanone	ND	U	250	3.6	10	11/18/08	11/18/08	JWG0804446	
Dibromochloromethane	ND	U	10	1.1	10	11/18/08	11/18/08	JWG0804446	
1,2-Dibromoethane (EDB)	ND	U	10	1.8	10	11/18/08	11/18/08	JWG0804446	
Chlorobenzene	**7.1**	I	10	1.5	10	11/18/08	11/18/08	JWG0804446	
1,1,1,2-Tetrachloroethane	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
Ethylbenzene	**22**		10	1.0	10	11/18/08	11/18/08	JWG0804446	
m,p-Xylenes	**26**		20	2.2	10	11/18/08	11/18/08	JWG0804446	
o-Xylene	**15**		10	1.0	10	11/18/08	11/18/08	JWG0804446	
Styrene	ND	U	10	0.51	10	11/18/08	11/18/08	JWG0804446	
Bromoform	ND	U	20	1.2	10	11/18/08	11/18/08	JWG0804446	
1,1,2,2-Tetrachloroethane	ND	U	10	1.5	10	11/18/08	11/18/08	JWG0804446	
1,2,3-Trichloropropane	ND	U	20	1.6	10	11/18/08	11/18/08	JWG0804446	
trans-1,4-Dichloro-2-butene	ND	UJ	200	11	10	11/18/08	11/18/08	JWG0804446	J(3)
1,3-Dichlorobenzene	ND	U	10	1.4	10	11/18/08	11/18/08	JWG0804446	
1,4-Dichlorobenzene	**12**		10	1.4	10	11/18/08	11/18/08	JWG0804446	
1,2-Dichlorobenzene	ND	U	10	1.7	10	11/18/08	11/18/08	JWG0804446	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	50	2.6	10	11/18/08	11/18/08	JWG0804446	
1,2,4-Trichlorobenzene	ND	U	100	3.0	10	11/18/08	11/18/08	JWG0804446	
Hexachlorobutadiene	ND	U	100	6.1	10	11/18/08	11/18/08	JWG0804446	
Naphthalene	ND	U	100	2.5	10	11/18/08	11/18/08	JWG0804446	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-4
Lab Code: J0805551-002

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	71-122	11/18/08	Acceptable
4-Bromofluorobenzene	94	75-120	11/18/08	Acceptable
Dibromofluoromethane	98	82-116	11/18/08	Acceptable
Toluene-d8	95	88-117	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-5
Lab Code: J0805551-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	200	2.3	10	11/18/08	11/18/08	JWG0804446	
Chloromethane	ND	U	10	1.7	10	11/18/08	11/18/08	JWG0804446	
Vinyl Chloride	ND	U	10	2.5	10	11/18/08	11/18/08	JWG0804446	
Bromomethane	ND	U	10	1.4	10	11/18/08	11/18/08	JWG0804446	
Chloroethane	ND	U	50	1.9	10	11/18/08	11/18/08	JWG0804446	
Trichlorofluoromethane	ND	U	200	2.5	10	11/18/08	11/18/08	JWG0804446	
Acrolein	ND	U	500	96	10	11/18/08	11/18/08	JWG0804446	
1,1-Dichloroethene	ND	U	10	1.6	10	11/18/08	11/18/08	JWG0804446	
Acetone	**11000**		5000	240	100	11/19/08	11/19/08	JWG0804466	
Iodomethane (Methyl Iodide)	ND	U	50	25	10	11/18/08	11/18/08	JWG0804446	
Carbon Disulfide	ND	U	100	8.4	10	11/18/08	11/18/08	JWG0804446	
Acetonitrile	ND	U	250	33	10	11/18/08	11/18/08	JWG0804446	
Allyl Chloride	ND	U	50	1.3	10	11/18/08	11/18/08	JWG0804446	
Methylene Chloride	**16**	I	50	7.2	10	11/18/08	11/18/08	JWG0804446	
Acrylonitrile	ND	U	100	5.9	10	11/18/08	11/18/08	JWG0804446	
trans-1,2-Dichloroethene	ND	U	10	1.3	10	11/18/08	11/18/08	JWG0804446	
1,1-Dichloroethane	ND	U	10	5.6	10	11/18/08	11/18/08	JWG0804446	
Vinyl Acetate	ND	U	100	6.0	10	11/18/08	11/18/08	JWG0804446	
Chloroprene	ND	U	10	2.4	10	11/18/08	11/18/08	JWG0804446	
cis-1,2-Dichloroethene	**5.1**	I	10	1.2	10	11/18/08	11/18/08	JWG0804446	
2,2-Dichloropropane	ND	U	10	2.2	10	11/18/08	11/18/08	JWG0804446	
1,1-Dichloropropene	ND	U	50	1.3	10	11/18/08	11/18/08	JWG0804446	
2-Butanone (MEK)	**24000**		1000	56	100	11/19/08	11/19/08	JWG0804466	
Propionitrile	ND	U	250	8.7	10	11/18/08	11/18/08	JWG0804446	
Bromochloromethane	ND	U	50	1.4	10	11/18/08	11/18/08	JWG0804446	
Methacrylonitrile	ND	U	50	2.0	10	11/18/08	11/18/08	JWG0804446	
Chloroform	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
1,1,1-Trichloroethane (TCA)	ND	U	10	2.1	10	11/18/08	11/18/08	JWG0804446	
Carbon Tetrachloride	ND	U	10	1.8	10	11/18/08	11/18/08	JWG0804446	
Benzene	**16**		10	5.2	10	11/18/08	11/18/08	JWG0804446	
1,2-Dichloroethane (EDC)	**40**		10	1.5	10	11/18/08	11/18/08	JWG0804446	
Isobutyl Alcohol	**620**	I	1000	46	10	11/18/08	11/18/08	JWG0804446	
Trichloroethene (TCE)	ND	U	10	1.5	10	11/18/08	11/18/08	JWG0804446	
1,2-Dichloropropane	ND	U	10	0.57	10	11/18/08	11/18/08	JWG0804446	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-5
Lab Code: J0805551-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromomethane	ND	U	50	1.2	10	11/18/08	11/18/08	JWG0804446	
Methyl Methacrylate	ND	U	10	2.1	10	11/18/08	11/18/08	JWG0804446	
Bromodichloromethane	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
cis-1,3-Dichloropropene	ND	U	10	1.2	10	11/18/08	11/18/08	JWG0804446	
4-Methyl-2-pentanone (MIBK)	**260**		250	3.7	10	11/18/08	11/18/08	JWG0804446	
Toluene	**490**		10	5.2	10	11/18/08	11/18/08	JWG0804446	
trans-1,3-Dichloropropene	ND	U	10	1.2	10	11/18/08	11/18/08	JWG0804446	
Ethyl Methacrylate	ND	UJ	10	1.4	10	11/18/08	11/18/08	JWG0804446	J(3)
1,1,2-Trichloroethane	ND	U	10	2.1	10	11/18/08	11/18/08	JWG0804446	
Tetrachloroethene (PCE)	ND	U	10	2.2	10	11/18/08	11/18/08	JWG0804446	
1,3-Dichloropropane	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
2-Hexanone	**38**	I	250	3.6	10	11/18/08	11/18/08	JWG0804446	
Dibromochloromethane	ND	U	10	1.1	10	11/18/08	11/18/08	JWG0804446	
1,2-Dibromoethane (EDB)	ND	U	10	1.8	10	11/18/08	11/18/08	JWG0804446	
Chlorobenzene	**4.4**	I	10	1.5	10	11/18/08	11/18/08	JWG0804446	
1,1,1,2-Tetrachloroethane	ND	U	10	1.0	10	11/18/08	11/18/08	JWG0804446	
Ethylbenzene	**30**		10	1.0	10	11/18/08	11/18/08	JWG0804446	
m,p-Xylenes	**39**		20	2.2	10	11/18/08	11/18/08	JWG0804446	
o-Xylene	**17**		10	1.0	10	11/18/08	11/18/08	JWG0804446	
Styrene	ND	U	10	0.51	10	11/18/08	11/18/08	JWG0804446	
Bromoform	ND	U	20	1.2	10	11/18/08	11/18/08	JWG0804446	
1,1,2,2-Tetrachloroethane	ND	U	10	1.5	10	11/18/08	11/18/08	JWG0804446	
1,2,3-Trichloropropane	ND	U	20	1.6	10	11/18/08	11/18/08	JWG0804446	
trans-1,4-Dichloro-2-butene	ND	UJ	200	11	10	11/18/08	11/18/08	JWG0804446	J(3)
1,3-Dichlorobenzene	ND	U	10	1.4	10	11/18/08	11/18/08	JWG0804446	
1,4-Dichlorobenzene	**6.9**	I	10	1.4	10	11/18/08	11/18/08	JWG0804446	
1,2-Dichlorobenzene	ND	U	10	1.7	10	11/18/08	11/18/08	JWG0804446	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	50	2.6	10	11/18/08	11/18/08	JWG0804446	
1,2,4-Trichlorobenzene	ND	U	100	3.0	10	11/18/08	11/18/08	JWG0804446	
Hexachlorobutadiene	ND	U	100	6.1	10	11/18/08	11/18/08	JWG0804446	
Naphthalene	ND	U	100	2.5	10	11/18/08	11/18/08	JWG0804446	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-5
Lab Code: J0805551-003

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	106	71-122	11/18/08	Acceptable
4-Bromofluorobenzene	96	75-120	11/18/08	Acceptable
Dibromofluoromethane	101	82-116	11/18/08	Acceptable
Toluene-d8	95	88-117	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Trip Blank
Lab Code: J0805551-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	20	0.23	1	11/19/08	11/19/08	JWG0804466	
Chloromethane	ND	U	1.0	0.17	1	11/19/08	11/19/08	JWG0804466	
Vinyl Chloride	ND	U	1.0	0.25	1	11/19/08	11/19/08	JWG0804466	
Bromomethane	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
Chloroethane	ND	U	5.0	0.19	1	11/19/08	11/19/08	JWG0804466	
Trichlorofluoromethane	ND	U	20	0.25	1	11/19/08	11/19/08	JWG0804466	
Acrolein	ND	U	50	9.6	1	11/19/08	11/19/08	JWG0804466	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/19/08	11/19/08	JWG0804466	
Acetone	ND	U	50	2.4	1	11/19/08	11/19/08	JWG0804466	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/19/08	11/19/08	JWG0804466	
Carbon Disulfide	ND	U	10	0.84	1	11/19/08	11/19/08	JWG0804466	
Acetonitrile	ND	U	25	3.3	1	11/19/08	11/19/08	JWG0804466	
Allyl Chloride	ND	U	5.0	0.13	1	11/19/08	11/19/08	JWG0804466	
Methylene Chloride	ND	U	5.0	0.72	1	11/19/08	11/19/08	JWG0804466	
Acrylonitrile	ND	U	10	0.59	1	11/19/08	11/19/08	JWG0804466	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/19/08	11/19/08	JWG0804466	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/19/08	11/19/08	JWG0804466	
Vinyl Acetate	ND	U	10	0.60	1	11/19/08	11/19/08	JWG0804466	
Chloroprene	ND	U	1.0	0.24	1	11/19/08	11/19/08	JWG0804466	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/19/08	11/19/08	JWG0804466	
2,2-Dichloropropane	ND	U	1.0	0.22	1	11/19/08	11/19/08	JWG0804466	
1,1-Dichloropropene	ND	U	5.0	0.13	1	11/19/08	11/19/08	JWG0804466	
2-Butanone (MEK)	ND	U	10	0.56	1	11/19/08	11/19/08	JWG0804466	
Propionitrile	ND	U	25	0.87	1	11/19/08	11/19/08	JWG0804466	
Bromochloromethane	ND	U	5.0	0.14	1	11/19/08	11/19/08	JWG0804466	
Methacrylonitrile	ND	U	5.0	0.20	1	11/19/08	11/19/08	JWG0804466	
Chloroform	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/19/08	11/19/08	JWG0804466	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/19/08	11/19/08	JWG0804466	
Benzene	ND	U	1.0	0.52	1	11/19/08	11/19/08	JWG0804466	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
Isobutyl Alcohol	ND	U	100	4.6	1	11/19/08	11/19/08	JWG0804466	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/19/08	11/19/08	JWG0804466	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Trip Blank
Lab Code: J0805551-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromomethane	ND	U	5.0	0.12	1	11/19/08	11/19/08	JWG0804466	
Methyl Methacrylate	ND	U	1.0	0.21	1	11/19/08	11/19/08	JWG0804466	
Bromodichloromethane	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/19/08	11/19/08	JWG0804466	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/19/08	11/19/08	JWG0804466	
Toluene	ND	U	1.0	0.52	1	11/19/08	11/19/08	JWG0804466	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/19/08	11/19/08	JWG0804466	
Ethyl Methacrylate	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/19/08	11/19/08	JWG0804466	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/19/08	11/19/08	JWG0804466	
1,3-Dichloropropane	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
2-Hexanone	ND	U	25	0.36	1	11/19/08	11/19/08	JWG0804466	
Dibromochloromethane	ND	U	1.0	0.11	1	11/19/08	11/19/08	JWG0804466	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/19/08	11/19/08	JWG0804466	
Chlorobenzene	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
Ethylbenzene	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
m,p-Xylenes	ND	U	2.0	0.22	1	11/19/08	11/19/08	JWG0804466	
o-Xylene	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
Styrene	ND	U	1.0	0.051	1	11/19/08	11/19/08	JWG0804466	
Bromoform	ND	U	2.0	0.12	1	11/19/08	11/19/08	JWG0804466	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/19/08	11/19/08	JWG0804466	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/19/08	11/19/08	JWG0804466	
1,3-Dichlorobenzene	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/19/08	11/19/08	JWG0804466	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/19/08	11/19/08	JWG0804466	
1,2,4-Trichlorobenzene	ND	U	10	0.30	1	11/19/08	11/19/08	JWG0804466	
Hexachlorobutadiene	ND	U	10	0.61	1	11/19/08	11/19/08	JWG0804466	
Naphthalene	ND	U	10	0.25	1	11/19/08	11/19/08	JWG0804466	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Trip Blank
Lab Code: J0805551-004

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	93	71-122	11/19/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/19/08	Acceptable
Dibromofluoromethane	99	82-116	11/19/08	Acceptable
Toluene-d8	105	88-117	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804446-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	20	0.23	1	11/18/08	11/18/08	JWG0804446	
Chloromethane	ND	U	1.0	0.17	1	11/18/08	11/18/08	JWG0804446	
Vinyl Chloride	ND	U	1.0	0.25	1	11/18/08	11/18/08	JWG0804446	
Bromomethane	ND	U	1.0	0.14	1	11/18/08	11/18/08	JWG0804446	
Chloroethane	ND	U	5.0	0.19	1	11/18/08	11/18/08	JWG0804446	
Trichlorofluoromethane	ND	U	20	0.25	1	11/18/08	11/18/08	JWG0804446	
Acrolein	ND	U	50	9.6	1	11/18/08	11/18/08	JWG0804446	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/18/08	11/18/08	JWG0804446	
Acetone	ND	U	50	2.4	1	11/18/08	11/18/08	JWG0804446	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/18/08	11/18/08	JWG0804446	
Carbon Disulfide	ND	U	10	0.84	1	11/18/08	11/18/08	JWG0804446	
Acetonitrile	ND	U	25	3.3	1	11/18/08	11/18/08	JWG0804446	
Allyl Chloride	ND	U	5.0	0.13	1	11/18/08	11/18/08	JWG0804446	
Methylene Chloride	ND	U	5.0	0.72	1	11/18/08	11/18/08	JWG0804446	
Acrylonitrile	ND	U	10	0.59	1	11/18/08	11/18/08	JWG0804446	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/18/08	11/18/08	JWG0804446	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/18/08	11/18/08	JWG0804446	
Vinyl Acetate	ND	U	10	0.60	1	11/18/08	11/18/08	JWG0804446	
Chloroprene	ND	U	1.0	0.24	1	11/18/08	11/18/08	JWG0804446	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/18/08	11/18/08	JWG0804446	
2,2-Dichloropropane	ND	U	1.0	0.22	1	11/18/08	11/18/08	JWG0804446	
1,1-Dichloropropene	ND	U	5.0	0.13	1	11/18/08	11/18/08	JWG0804446	
2-Butanone (MEK)	ND	U	10	0.56	1	11/18/08	11/18/08	JWG0804446	
Propionitrile	ND	U	25	0.87	1	11/18/08	11/18/08	JWG0804446	
Bromochloromethane	ND	U	5.0	0.14	1	11/18/08	11/18/08	JWG0804446	
Methacrylonitrile	ND	U	5.0	0.20	1	11/18/08	11/18/08	JWG0804446	
Chloroform	ND	U	1.0	0.10	1	11/18/08	11/18/08	JWG0804446	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/18/08	11/18/08	JWG0804446	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/18/08	11/18/08	JWG0804446	
Benzene	ND	U	1.0	0.52	1	11/18/08	11/18/08	JWG0804446	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/18/08	11/18/08	JWG0804446	
Isobutyl Alcohol	ND	UJ	100	4.6	1	11/18/08	11/18/08	JWG0804446	J(3)
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/18/08	11/18/08	JWG0804446	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/18/08	11/18/08	JWG0804446	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804446-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromomethane	ND	U	5.0	0.12	1	11/18/08	11/18/08	JWG0804446	
Methyl Methacrylate	ND	U	1.0	0.21	1	11/18/08	11/18/08	JWG0804446	
Bromodichloromethane	ND	U	1.0	0.10	1	11/18/08	11/18/08	JWG0804446	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/18/08	11/18/08	JWG0804446	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/18/08	11/18/08	JWG0804446	
Toluene	ND	U	1.0	0.52	1	11/18/08	11/18/08	JWG0804446	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/18/08	11/18/08	JWG0804446	
Ethyl Methacrylate	ND	UJ	1.0	0.14	1	11/18/08	11/18/08	JWG0804446	J(3)
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/18/08	11/18/08	JWG0804446	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/18/08	11/18/08	JWG0804446	
1,3-Dichloropropane	ND	U	1.0	0.10	1	11/18/08	11/18/08	JWG0804446	
2-Hexanone	ND	U	25	0.36	1	11/18/08	11/18/08	JWG0804446	
Dibromochloromethane	ND	U	1.0	0.11	1	11/18/08	11/18/08	JWG0804446	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/18/08	11/18/08	JWG0804446	
Chlorobenzene	ND	U	1.0	0.15	1	11/18/08	11/18/08	JWG0804446	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/18/08	11/18/08	JWG0804446	
Ethylbenzene	ND	U	1.0	0.10	1	11/18/08	11/18/08	JWG0804446	
m,p-Xylenes	ND	U	2.0	0.22	1	11/18/08	11/18/08	JWG0804446	
o-Xylene	ND	U	1.0	0.10	1	11/18/08	11/18/08	JWG0804446	
Styrene	ND	U	1.0	0.051	1	11/18/08	11/18/08	JWG0804446	
Bromoform	ND	U	2.0	0.12	1	11/18/08	11/18/08	JWG0804446	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/18/08	11/18/08	JWG0804446	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/18/08	11/18/08	JWG0804446	
trans-1,4-Dichloro-2-butene	ND	UJ	20	1.1	1	11/18/08	11/18/08	JWG0804446	J(3)
1,3-Dichlorobenzene	ND	U	1.0	0.14	1	11/18/08	11/18/08	JWG0804446	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/18/08	11/18/08	JWG0804446	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/18/08	11/18/08	JWG0804446	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/18/08	11/18/08	JWG0804446	
1,2,4-Trichlorobenzene	ND	U	10	0.30	1	11/18/08	11/18/08	JWG0804446	
Hexachlorobutadiene	ND	U	10	0.61	1	11/18/08	11/18/08	JWG0804446	
Naphthalene	ND	U	10	0.25	1	11/18/08	11/18/08	JWG0804446	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804446-4

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	71-122	11/18/08	Acceptable
4-Bromofluorobenzene	100	75-120	11/18/08	Acceptable
Dibromofluoromethane	97	82-116	11/18/08	Acceptable
Toluene-d8	95	88-117	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804466-3

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	20	0.23	1	11/19/08	11/19/08	JWG0804466	
Chloromethane	ND	U	1.0	0.17	1	11/19/08	11/19/08	JWG0804466	
Vinyl Chloride	ND	U	1.0	0.25	1	11/19/08	11/19/08	JWG0804466	
Bromomethane	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
Chloroethane	ND	U	5.0	0.19	1	11/19/08	11/19/08	JWG0804466	
Trichlorofluoromethane	ND	U	20	0.25	1	11/19/08	11/19/08	JWG0804466	
Acrolein	ND	U	50	9.6	1	11/19/08	11/19/08	JWG0804466	
1,1-Dichloroethene	ND	U	1.0	0.16	1	11/19/08	11/19/08	JWG0804466	
Acetone	ND	U	50	2.4	1	11/19/08	11/19/08	JWG0804466	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	11/19/08	11/19/08	JWG0804466	
Carbon Disulfide	ND	U	10	0.84	1	11/19/08	11/19/08	JWG0804466	
Acetonitrile	ND	U	25	3.3	1	11/19/08	11/19/08	JWG0804466	
Allyl Chloride	ND	U	5.0	0.13	1	11/19/08	11/19/08	JWG0804466	
Methylene Chloride	ND	U	5.0	0.72	1	11/19/08	11/19/08	JWG0804466	
Acrylonitrile	ND	U	10	0.59	1	11/19/08	11/19/08	JWG0804466	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	11/19/08	11/19/08	JWG0804466	
1,1-Dichloroethane	ND	U	1.0	0.56	1	11/19/08	11/19/08	JWG0804466	
Vinyl Acetate	ND	U	10	0.60	1	11/19/08	11/19/08	JWG0804466	
Chloroprene	ND	U	1.0	0.24	1	11/19/08	11/19/08	JWG0804466	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	11/19/08	11/19/08	JWG0804466	
2,2-Dichloropropane	ND	U	1.0	0.22	1	11/19/08	11/19/08	JWG0804466	
1,1-Dichloropropene	ND	U	5.0	0.13	1	11/19/08	11/19/08	JWG0804466	
2-Butanone (MEK)	ND	U	10	0.56	1	11/19/08	11/19/08	JWG0804466	
Propionitrile	ND	U	25	0.87	1	11/19/08	11/19/08	JWG0804466	
Bromochloromethane	ND	U	5.0	0.14	1	11/19/08	11/19/08	JWG0804466	
Methacrylonitrile	ND	U	5.0	0.20	1	11/19/08	11/19/08	JWG0804466	
Chloroform	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	11/19/08	11/19/08	JWG0804466	
Carbon Tetrachloride	ND	U	1.0	0.18	1	11/19/08	11/19/08	JWG0804466	
Benzene	ND	U	1.0	0.52	1	11/19/08	11/19/08	JWG0804466	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
Isobutyl Alcohol	ND	U	100	4.6	1	11/19/08	11/19/08	JWG0804466	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
1,2-Dichloropropane	ND	U	1.0	0.057	1	11/19/08	11/19/08	JWG0804466	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804466-3

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibromomethane	ND	U	5.0	0.12	1	11/19/08	11/19/08	JWG0804466	
Methyl Methacrylate	ND	U	1.0	0.21	1	11/19/08	11/19/08	JWG0804466	
Bromodichloromethane	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/19/08	11/19/08	JWG0804466	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	11/19/08	11/19/08	JWG0804466	
Toluene	ND	U	1.0	0.52	1	11/19/08	11/19/08	JWG0804466	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	11/19/08	11/19/08	JWG0804466	
Ethyl Methacrylate	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	11/19/08	11/19/08	JWG0804466	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	11/19/08	11/19/08	JWG0804466	
1,3-Dichloropropane	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
2-Hexanone	ND	U	25	0.36	1	11/19/08	11/19/08	JWG0804466	
Dibromochloromethane	ND	U	1.0	0.11	1	11/19/08	11/19/08	JWG0804466	
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	11/19/08	11/19/08	JWG0804466	
Chlorobenzene	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
Ethylbenzene	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
m,p-Xylenes	ND	U	2.0	0.22	1	11/19/08	11/19/08	JWG0804466	
o-Xylene	ND	U	1.0	0.10	1	11/19/08	11/19/08	JWG0804466	
Styrene	ND	U	1.0	0.051	1	11/19/08	11/19/08	JWG0804466	
Bromoform	ND	U	2.0	0.12	1	11/19/08	11/19/08	JWG0804466	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	11/19/08	11/19/08	JWG0804466	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	11/19/08	11/19/08	JWG0804466	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	11/19/08	11/19/08	JWG0804466	
1,3-Dichlorobenzene	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	11/19/08	11/19/08	JWG0804466	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	11/19/08	11/19/08	JWG0804466	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	5.0	0.26	1	11/19/08	11/19/08	JWG0804466	
1,2,4-Trichlorobenzene	ND	U	10	0.30	1	11/19/08	11/19/08	JWG0804466	
Hexachlorobutadiene	ND	U	10	0.61	1	11/19/08	11/19/08	JWG0804466	
Naphthalene	ND	U	10	0.25	1	11/19/08	11/19/08	JWG0804466	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804466-3

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	92	71-122	11/19/08	Acceptable
4-Bromofluorobenzene	92	75-120	11/19/08	Acceptable
Dibromofluoromethane	99	82-116	11/19/08	Acceptable
Toluene-d8	106	88-117	11/19/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	L-1	**Units:**	ug/L
Lab Code:	J0805551-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	120	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	L-4	**Units:**	ug/L
Lab Code:	J0805551-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	118	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	L-5	**Units:**	ug/L
Lab Code:	J0805551-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	118	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804358-4	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8011		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.020	0.0070	1	11/16/08	11/18/08	JWG0804358	
1,2-Dibromo-3-chloropropane (DBCP	ND	U	0.020	0.0057	1	11/16/08	11/18/08	JWG0804358	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,1,1,2-Tetrachloroethane	132	77-150	11/18/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-1
Lab Code: J0805551-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	5.7	0.83	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosomethylethylamine	ND	U	5.7	0.94	1	11/18/08	11/20/08	JWG0804427	
Methyl Methanesulfonate	ND	U	5.7	0.64	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosodiethylamine	ND	U	5.7	0.72	1	11/18/08	11/20/08	JWG0804427	
Ethyl Methanesulfonate	ND	U	5.7	0.74	1	11/18/08	11/20/08	JWG0804427	
Phenol	ND	U	5.7	0.48	1	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroethyl) Ether	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
2-Chlorophenol	ND	U	5.7	0.86	1	11/18/08	11/20/08	JWG0804427	
1,3-Dichlorobenzene	ND	U	5.7	0.80	1	11/18/08	11/20/08	JWG0804427	
1,4-Dichlorobenzene	**2.6**	I	5.7	1.4	1	11/18/08	11/20/08	JWG0804427	
1,2-Dichlorobenzene	ND	U	5.7	0.85	1	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroisopropyl) Ether	ND	U	5.7	0.65	1	11/18/08	11/20/08	JWG0804427	
Benzyl alcohol	ND	U	5.7	0.79	1	11/18/08	11/20/08	JWG0804427	
2-Methylphenol	ND	U	5.7	0.73	1	11/18/08	11/20/08	JWG0804427	
Acetophenone	ND	U	12	1.5	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosopyrrolidine	ND	U	5.7	0.80	1	11/18/08	11/20/08	JWG0804427	
Hexachloroethane	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosodi-n-propylamine	ND	U	5.7	0.78	1	11/18/08	11/20/08	JWG0804427	
o-Toluidine	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
4-Methylphenol†	**2.4**	I	5.7	0.88	1	11/18/08	11/20/08	JWG0804427	
Nitrobenzene	ND	U	5.7	0.83	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosopiperidine	ND	U	5.7	1.9	1	11/18/08	11/20/08	JWG0804427	
Isophorone	ND	U	5.7	0.91	1	11/18/08	11/20/08	JWG0804427	
2-Nitrophenol	ND	U	23	0.69	1	11/18/08	11/20/08	JWG0804427	
2,4-Dimethylphenol	ND	U	5.7	0.90	1	11/18/08	11/20/08	JWG0804427	
O,O,O-Triethyl Phosphorothioate	ND	U	23	0.60	1	11/18/08	11/20/08	JWG0804427	
bis(2-Chloroethoxy)methane	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
2,4-Dichlorophenol	ND	U	5.7	0.57	1	11/18/08	11/20/08	JWG0804427	
1,2,4-Trichlorobenzene	ND	U	5.7	0.89	1	11/18/08	11/20/08	JWG0804427	
Naphthalene	ND	U	5.7	0.90	1	11/18/08	11/20/08	JWG0804427	
2,6-Dichlorophenol	ND	U	12	0.82	1	11/18/08	11/20/08	JWG0804427	
Hexachloropropene	ND	U	5.7	2.2	1	11/18/08	11/20/08	JWG0804427	
4-Chloroaniline	ND	U	5.7	0.61	1	11/18/08	11/20/08	JWG0804427	
Hexachlorobutadiene	ND	U	5.7	0.70	1	11/18/08	11/20/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-1
Lab Code: J0805551-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodi-n-butylamine	ND	U	5.7	0.77	1	11/18/08	11/20/08	JWG0804427	
p-Phenylenediamine	ND	U	23	1.3	1	11/18/08	11/20/08	JWG0804427	
4-Chloro-3-methylphenol	ND	U	5.7	0.86	1	11/18/08	11/20/08	JWG0804427	
2-Methylnaphthalene	ND	U	5.7	0.85	1	11/18/08	11/20/08	JWG0804427	
Hexachlorocyclopentadiene	ND	U	5.7	0.47	1	11/18/08	11/20/08	JWG0804427	
1,2,4,5-Tetrachlorobenzene	ND	U	5.7	0.63	1	11/18/08	11/20/08	JWG0804427	
Safrole	ND	U	5.7	0.81	1	11/18/08	11/20/08	JWG0804427	
2,4,6-Trichlorophenol	ND	U	5.7	0.83	1	11/18/08	11/20/08	JWG0804427	
2,4,5-Trichlorophenol	ND	U	5.7	0.74	1	11/18/08	11/20/08	JWG0804427	
Isosafrole	ND	U	5.7	0.86	1	11/18/08	11/20/08	JWG0804427	
2-Chloronaphthalene	ND	U	5.7	0.81	1	11/18/08	11/20/08	JWG0804427	
2-Nitroaniline	ND	U	5.7	0.63	1	11/18/08	11/20/08	JWG0804427	
1,4-Naphthoquinone	ND	U	12	1.6	1	11/18/08	11/20/08	JWG0804427	
1,3-Dinitrobenzene	ND	U	12	1.8	1	11/18/08	11/20/08	JWG0804427	
Acenaphthylene	ND	U	5.7	0.66	1	11/18/08	11/20/08	JWG0804427	
Dimethyl Phthalate	ND	U	5.7	0.87	1	11/18/08	11/20/08	JWG0804427	
2,6-Dinitrotoluene	ND	U	5.7	0.95	1	11/18/08	11/20/08	JWG0804427	
Acenaphthene	ND	U	5.7	1.2	1	11/18/08	11/20/08	JWG0804427	
3-Nitroaniline	ND	U	5.7	0.86	1	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrophenol	ND	U	23	0.62	1	11/18/08	11/20/08	JWG0804427	
Pentachlorobenzene	ND	U	5.7	2.8	1	11/18/08	11/20/08	JWG0804427	
Dibenzofuran	ND	U	5.7	0.90	1	11/18/08	11/20/08	JWG0804427	
4-Nitrophenol	ND	U	23	1.1	1	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrotoluene	ND	U	5.7	4.7	1	11/18/08	11/20/08	JWG0804427	
2-Naphthylamine	ND	U	5.7	1.3	1	11/18/08	11/20/08	JWG0804427	
2,3,4,6-Tetrachlorophenol	ND	U	5.7	1.4	1	11/18/08	11/20/08	JWG0804427	
1-Naphthylamine	ND	U	5.7	1.3	1	11/18/08	11/20/08	JWG0804427	
Fluorene	ND	U	5.7	1.0	1	11/18/08	11/20/08	JWG0804427	
4-Chlorophenyl Phenyl Ether	ND	U	5.7	0.70	1	11/18/08	11/20/08	JWG0804427	
Thionazin	ND	U	12	0.93	1	11/18/08	11/20/08	JWG0804427	
Diethyl Phthalate	ND	U	5.7	4.7	1	11/18/08	11/20/08	JWG0804427	
5-Nitro-o-toluidine	ND	U	5.7	1.2	1	11/18/08	11/20/08	JWG0804427	
4-Nitroaniline	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
2-Methyl-4,6-dinitrophenol	ND	UJ	23	0.73	1	11/18/08	11/20/08	JWG0804427	J(3)

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-1
Lab Code: J0805551-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine†	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
Diallate	ND	U	5.7	1.2	1	11/18/08	11/20/08	JWG0804427	
Phorate	ND	U	5.7	1.0	1	11/18/08	11/20/08	JWG0804427	
1,3,5-Trinitrobenzene	ND	U	5.7	1.3	1	11/18/08	11/20/08	JWG0804427	
4-Bromophenyl Phenyl Ether	ND	U	5.7	0.77	1	11/18/08	11/20/08	JWG0804427	
Phenacetin	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
Hexachlorobenzene	ND	U	5.7	0.72	1	11/18/08	11/20/08	JWG0804427	
Dimethoate	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
4-Aminobiphenyl	ND	U	5.7	1.2	1	11/18/08	11/20/08	JWG0804427	
Pentachlorophenol	ND	U	23	0.77	1	11/18/08	11/20/08	JWG0804427	
Pentachloronitrobenzene	ND	U	5.7	1.8	1	11/18/08	11/20/08	JWG0804427	
Pronamide	ND	U	23	0.97	1	11/18/08	11/20/08	JWG0804427	
Phenanthrene	ND	U	5.7	0.80	1	11/18/08	11/20/08	JWG0804427	
Disulfoton	ND	U	5.7	0.60	1	11/18/08	11/20/08	JWG0804427	
Dinoseb	ND	U	5.7	0.70	1	11/18/08	11/20/08	JWG0804427	
Anthracene	ND	U	5.7	0.81	1	11/18/08	11/20/08	JWG0804427	
Methyl Parathion	ND	U	12	1.3	1	11/18/08	11/20/08	JWG0804427	
Di-n-butyl Phthalate	ND	U	5.7	1.2	1	11/18/08	11/20/08	JWG0804427	
Parathion	ND	U	23	1.1	1	11/18/08	11/20/08	JWG0804427	
Methapyrilene	ND	U	5.7	1.8	1	11/18/08	11/20/08	JWG0804427	
Isodrin	ND	U	12	0.81	1	11/18/08	11/20/08	JWG0804427	
Fluoranthene	ND	U	5.7	0.75	1	11/18/08	11/20/08	JWG0804427	
Pyrene	ND	U	5.7	0.96	1	11/18/08	11/20/08	JWG0804427	
Chlorobenzilate	ND	U	12	0.96	1	11/18/08	11/20/08	JWG0804427	
3,3'-Dimethylbenzidine	ND	UJ	23	2.7	1	11/18/08	11/20/08	JWG0804427	J(3)
Famphur	ND	U	12	0.79	1	11/18/08	11/20/08	JWG0804427	
p-Dimethylaminoazobenzene	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
Butyl Benzyl Phthalate	ND	U	12	1.3	1	11/18/08	11/20/08	JWG0804427	
2-Acetylaminofluorene	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
Kepone	ND	U	57	4.8	1	11/18/08	11/20/08	JWG0804427	
3,3'-Dichlorobenzidine	ND	U	23	1.1	1	11/18/08	11/20/08	JWG0804427	
Benz(a)anthracene	ND	U	5.7	0.98	1	11/18/08	11/20/08	JWG0804427	
Chrysene	ND	U	5.7	0.99	1	11/18/08	11/20/08	JWG0804427	
Bis(2-ethylhexyl) Phthalate	ND	U	5.7	1.2	1	11/18/08	11/20/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-1	**Units:**	ug/L
Lab Code:	J0805551-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Di-n-octyl Phthalate	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	
Benzo(b)fluoranthene	ND	UJ	5.7	0.99	1	11/18/08	11/20/08	JWG0804427	J(3)
Benzo(k)fluoranthene	ND	U	5.7	0.62	1	11/18/08	11/20/08	JWG0804427	
7,12-Dimethylbenz(a)anthracene	ND	U	5.7	0.99	1	11/18/08	11/20/08	JWG0804427	
Benzo(a)pyrene	ND	U	5.7	0.72	1	11/18/08	11/20/08	JWG0804427	
3-Methylcholanthrene	ND	U	5.7	1.2	1	11/18/08	11/20/08	JWG0804427	
Indeno(1,2,3-cd)pyrene	ND	U	5.7	0.63	1	11/18/08	11/20/08	JWG0804427	
Dibenz(a,h)anthracene	ND	U	5.7	0.71	1	11/18/08	11/20/08	JWG0804427	
Benzo(g,h,i)perylene	ND	U	5.7	1.1	1	11/18/08	11/20/08	JWG0804427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	18	10-77	11/20/08	Acceptable
Phenol-d6	15	10-51	11/20/08	Acceptable
Nitrobenzene-d5	51	32-106	11/20/08	Acceptable
2-Fluorobiphenyl	31	30-102	11/20/08	Acceptable
2,4,6-Tribromophenol	41	30-143	11/20/08	Acceptable
Terphenyl-d14	15	23-165	11/20/08	Outside Control Limits

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-4	**Units:**	ug/L
Lab Code:	J0805551-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	6.5	0.94	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosomethylethylamine	ND	U	6.5	1.1	1	11/18/08	11/20/08	JWG0804427	
Methyl Methanesulfonate	ND	U	6.5	0.72	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosodiethylamine	ND	U	6.5	0.81	1	11/18/08	11/20/08	JWG0804427	
Ethyl Methanesulfonate	ND	U	6.5	0.84	1	11/18/08	11/20/08	JWG0804427	
Phenol	ND	U	6.5	0.54	1	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroethyl) Ether	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
2-Chlorophenol	ND	U	6.5	0.97	1	11/18/08	11/20/08	JWG0804427	
1,3-Dichlorobenzene	ND	U	6.5	0.90	1	11/18/08	11/20/08	JWG0804427	
1,4-Dichlorobenzene	**3.0**	I	6.5	1.6	1	11/18/08	11/20/08	JWG0804427	
1,2-Dichlorobenzene	ND	U	6.5	0.95	1	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroisopropyl) Ether	ND	U	6.5	0.74	1	11/18/08	11/20/08	JWG0804427	
Benzyl alcohol	ND	U	6.5	0.89	1	11/18/08	11/20/08	JWG0804427	
2-Methylphenol	**3.7**	I	6.5	0.83	1	11/18/08	11/20/08	JWG0804427	
Acetophenone	ND	U	13	1.7	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosopyrrolidine	ND	U	6.5	0.90	1	11/18/08	11/20/08	JWG0804427	
Hexachloroethane	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosodi-n-propylamine	ND	U	6.5	0.88	1	11/18/08	11/20/08	JWG0804427	
o-Toluidine	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
4-Methylphenol†	**2.0**	I	6.5	0.99	1	11/18/08	11/20/08	JWG0804427	
Nitrobenzene	ND	U	6.5	0.94	1	11/18/08	11/20/08	JWG0804427	
N-Nitrosopiperidine	ND	U	6.5	2.1	1	11/18/08	11/20/08	JWG0804427	
Isophorone	ND	U	6.5	1.1	1	11/18/08	11/20/08	JWG0804427	
2-Nitrophenol	ND	U	26	0.77	1	11/18/08	11/20/08	JWG0804427	
2,4-Dimethylphenol	ND	U	6.5	1.1	1	11/18/08	11/20/08	JWG0804427	
O,O,O-Triethyl Phosphorothioate	ND	U	26	0.67	1	11/18/08	11/20/08	JWG0804427	
bis(2-Chloroethoxy)methane	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
2,4-Dichlorophenol	ND	U	6.5	0.65	1	11/18/08	11/20/08	JWG0804427	
1,2,4-Trichlorobenzene	ND	U	6.5	1.0	1	11/18/08	11/20/08	JWG0804427	
Naphthalene	**3.9**	I	6.5	1.1	1	11/18/08	11/20/08	JWG0804427	
2,6-Dichlorophenol	ND	U	13	0.93	1	11/18/08	11/20/08	JWG0804427	
Hexachloropropene	ND	U	6.5	2.5	1	11/18/08	11/20/08	JWG0804427	
4-Chloroaniline	ND	U	6.5	0.68	1	11/18/08	11/20/08	JWG0804427	
Hexachlorobutadiene	ND	U	6.5	0.79	1	11/18/08	11/20/08	JWG0804427	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-4
Lab Code: J0805551-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodi-n-butylamine	ND	U	6.5	0.86	1	11/18/08	11/20/08	JWG0804427	
p-Phenylenediamine	ND	U	26	1.5	1	11/18/08	11/20/08	JWG0804427	
4-Chloro-3-methylphenol	ND	U	6.5	0.97	1	11/18/08	11/20/08	JWG0804427	
2-Methylnaphthalene	**2.6**	I	6.5	0.95	1	11/18/08	11/20/08	JWG0804427	
Hexachlorocyclopentadiene	ND	U	6.5	0.53	1	11/18/08	11/20/08	JWG0804427	
1,2,4,5-Tetrachlorobenzene	ND	U	6.5	0.71	1	11/18/08	11/20/08	JWG0804427	
Safrole	ND	U	6.5	0.92	1	11/18/08	11/20/08	JWG0804427	
2,4,6-Trichlorophenol	ND	U	6.5	0.94	1	11/18/08	11/20/08	JWG0804427	
2,4,5-Trichlorophenol	ND	U	6.5	0.84	1	11/18/08	11/20/08	JWG0804427	
Isosafrole	ND	U	6.5	0.97	1	11/18/08	11/20/08	JWG0804427	
2-Chloronaphthalene	ND	U	6.5	0.92	1	11/18/08	11/20/08	JWG0804427	
2-Nitroaniline	ND	U	6.5	0.71	1	11/18/08	11/20/08	JWG0804427	
1,4-Naphthoquinone	ND	U	13	1.8	1	11/18/08	11/20/08	JWG0804427	
1,3-Dinitrobenzene	ND	U	13	2.0	1	11/18/08	11/20/08	JWG0804427	
Acenaphthylene	ND	U	6.5	0.75	1	11/18/08	11/20/08	JWG0804427	
Dimethyl Phthalate	ND	U	6.5	0.98	1	11/18/08	11/20/08	JWG0804427	
2,6-Dinitrotoluene	ND	U	6.5	1.1	1	11/18/08	11/20/08	JWG0804427	
Acenaphthene	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
3-Nitroaniline	ND	U	6.5	0.97	1	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrophenol	ND	U	26	0.70	1	11/18/08	11/20/08	JWG0804427	
Pentachlorobenzene	ND	U	6.5	3.1	1	11/18/08	11/20/08	JWG0804427	
Dibenzofuran	ND	U	6.5	1.1	1	11/18/08	11/20/08	JWG0804427	
4-Nitrophenol	ND	U	26	1.2	1	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrotoluene	ND	U	6.5	5.3	1	11/18/08	11/20/08	JWG0804427	
2-Naphthylamine	ND	U	6.5	1.5	1	11/18/08	11/20/08	JWG0804427	
2,3,4,6-Tetrachlorophenol	ND	U	6.5	1.6	1	11/18/08	11/20/08	JWG0804427	
1-Naphthylamine	ND	U	6.5	1.5	1	11/18/08	11/20/08	JWG0804427	
Fluorene	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
4-Chlorophenyl Phenyl Ether	ND	U	6.5	0.79	1	11/18/08	11/20/08	JWG0804427	
Thionazin	ND	U	13	1.1	1	11/18/08	11/20/08	JWG0804427	
Diethyl Phthalate	ND	U	6.5	5.3	1	11/18/08	11/20/08	JWG0804427	
5-Nitro-o-toluidine	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
4-Nitroaniline	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
2-Methyl-4,6-dinitrophenol	ND	UJ	26	0.83	1	11/18/08	11/20/08	JWG0804427	J(3)

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-4
Lab Code: J0805551-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine†	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
Diallate	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
Phorate	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
1,3,5-Trinitrobenzene	ND	U	6.5	1.5	1	11/18/08	11/20/08	JWG0804427	
4-Bromophenyl Phenyl Ether	ND	U	6.5	0.86	1	11/18/08	11/20/08	JWG0804427	
Phenacetin	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
Hexachlorobenzene	ND	U	6.5	0.81	1	11/18/08	11/20/08	JWG0804427	
Dimethoate	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
4-Aminobiphenyl	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
Pentachlorophenol	ND	U	26	0.86	1	11/18/08	11/20/08	JWG0804427	
Pentachloronitrobenzene	ND	U	6.5	2.0	1	11/18/08	11/20/08	JWG0804427	
Pronamide	ND	U	26	1.1	1	11/18/08	11/20/08	JWG0804427	
Phenanthrene	ND	U	6.5	0.90	1	11/18/08	11/20/08	JWG0804427	
Disulfoton	ND	U	6.5	0.67	1	11/18/08	11/20/08	JWG0804427	
Dinoseb	ND	U	6.5	0.79	1	11/18/08	11/20/08	JWG0804427	
Anthracene	ND	U	6.5	0.92	1	11/18/08	11/20/08	JWG0804427	
Methyl Parathion	ND	U	13	1.5	1	11/18/08	11/20/08	JWG0804427	
Di-n-butyl Phthalate	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
Parathion	ND	U	26	1.2	1	11/18/08	11/20/08	JWG0804427	
Methapyrilene	ND	U	6.5	2.0	1	11/18/08	11/20/08	JWG0804427	
Isodrin	ND	U	13	0.92	1	11/18/08	11/20/08	JWG0804427	
Fluoranthene	ND	U	6.5	0.85	1	11/18/08	11/20/08	JWG0804427	
Pyrene	ND	U	6.5	1.1	1	11/18/08	11/20/08	JWG0804427	
Chlorobenzilate	ND	U	13	1.1	1	11/18/08	11/20/08	JWG0804427	
3,3'-Dimethylbenzidine	ND	UJ	26	3.0	1	11/18/08	11/20/08	JWG0804427	J(3)
Famphur	ND	U	13	0.89	1	11/18/08	11/20/08	JWG0804427	
p-Dimethylaminoazobenzene	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
Butyl Benzyl Phthalate	ND	U	13	1.5	1	11/18/08	11/20/08	JWG0804427	
2-Acetylaminofluorene	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
Kepone	ND	U	65	5.4	1	11/18/08	11/20/08	JWG0804427	
3,3'-Dichlorobenzidine	ND	U	26	1.2	1	11/18/08	11/20/08	JWG0804427	
Benz(a)anthracene	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
Chrysene	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
Bis(2-ethylhexyl) Phthalate	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-4	**Units:**	ug/L
Lab Code:	J0805551-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Di-n-octyl Phthalate	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
Benzo(b)fluoranthene	ND	UJ	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	J(3)
Benzo(k)fluoranthene	ND	U	6.5	0.70	1	11/18/08	11/20/08	JWG0804427	
7,12-Dimethylbenz(a)anthracene	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	
Benzo(a)pyrene	ND	U	6.5	0.81	1	11/18/08	11/20/08	JWG0804427	
3-Methylcholanthrene	ND	U	6.5	1.3	1	11/18/08	11/20/08	JWG0804427	
Indeno(1,2,3-cd)pyrene	ND	U	6.5	0.71	1	11/18/08	11/20/08	JWG0804427	
Dibenz(a,h)anthracene	ND	U	6.5	0.80	1	11/18/08	11/20/08	JWG0804427	
Benzo(g,h,i)perylene	ND	U	6.5	1.2	1	11/18/08	11/20/08	JWG0804427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	19	10-77	11/20/08	Acceptable
Phenol-d6	19	10-51	11/20/08	Acceptable
Nitrobenzene-d5	59	32-106	11/20/08	Acceptable
2-Fluorobiphenyl	38	30-102	11/20/08	Acceptable
2,4,6-Tribromophenol	48	30-143	11/20/08	Acceptable
Terphenyl-d14	28	23-165	11/20/08	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-5
Lab Code: J0805551-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	150	21	25	11/18/08	11/20/08	JWG0804427	
N-Nitrosomethylethylamine	ND	U	150	24	25	11/18/08	11/20/08	JWG0804427	
Methyl Methanesulfonate	ND	U	150	16	25	11/18/08	11/20/08	JWG0804427	
N-Nitrosodiethylamine	ND	U	150	18	25	11/18/08	11/20/08	JWG0804427	
Ethyl Methanesulfonate	ND	U	150	19	25	11/18/08	11/20/08	JWG0804427	
Phenol	**110**	I	150	12	25	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroethyl) Ether	ND	U	150	28	25	11/18/08	11/20/08	JWG0804427	
2-Chlorophenol	ND	U	150	22	25	11/18/08	11/20/08	JWG0804427	
1,3-Dichlorobenzene	ND	U	150	20	25	11/18/08	11/20/08	JWG0804427	
1,4-Dichlorobenzene	ND	U	150	35	25	11/18/08	11/20/08	JWG0804427	
1,2-Dichlorobenzene	ND	U	150	22	25	11/18/08	11/20/08	JWG0804427	
Bis(2-chloroisopropyl) Ether	ND	U	150	17	25	11/18/08	11/20/08	JWG0804427	
Benzyl alcohol	ND	U	150	20	25	11/18/08	11/20/08	JWG0804427	
2-Methylphenol	ND	U	150	19	25	11/18/08	11/20/08	JWG0804427	
Acetophenone	ND	U	290	37	25	11/18/08	11/20/08	JWG0804427	
N-Nitrosopyrrolidine	ND	U	150	20	25	11/18/08	11/20/08	JWG0804427	
Hexachloroethane	ND	U	150	27	25	11/18/08	11/20/08	JWG0804427	
N-Nitrosodi-n-propylamine	ND	U	150	20	25	11/18/08	11/20/08	JWG0804427	
o-Toluidine	ND	U	150	26	25	11/18/08	11/20/08	JWG0804427	
4-Methylphenol†	**1900**		150	22	25	11/18/08	11/20/08	JWG0804427	
Nitrobenzene	ND	U	150	21	25	11/18/08	11/20/08	JWG0804427	
N-Nitrosopiperidine	ND	U	150	46	25	11/18/08	11/20/08	JWG0804427	
Isophorone	ND	U	150	23	25	11/18/08	11/20/08	JWG0804427	
2-Nitrophenol	ND	U	570	18	25	11/18/08	11/20/08	JWG0804427	
2,4-Dimethylphenol	ND	U	150	23	25	11/18/08	11/20/08	JWG0804427	
O,O,O-Triethyl Phosphorothioate	ND	U	570	15	25	11/18/08	11/20/08	JWG0804427	
bis(2-Chloroethoxy)methane	ND	U	150	26	25	11/18/08	11/20/08	JWG0804427	
2,4-Dichlorophenol	ND	U	150	15	25	11/18/08	11/20/08	JWG0804427	
1,2,4-Trichlorobenzene	ND	U	150	23	25	11/18/08	11/20/08	JWG0804427	
Naphthalene	ND	U	150	23	25	11/18/08	11/20/08	JWG0804427	
2,6-Dichlorophenol	ND	U	290	21	25	11/18/08	11/20/08	JWG0804427	
Hexachloropropene	ND	U	150	54	25	11/18/08	11/20/08	JWG0804427	
4-Chloroaniline	ND	U	150	16	25	11/18/08	11/20/08	JWG0804427	
Hexachlorobutadiene	ND	U	150	18	25	11/18/08	11/20/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-5	**Units:**	ug/L
Lab Code:	J0805551-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodi-n-butylamine	ND	U	150	20	25	11/18/08	11/20/08	JWG0804427	
p-Phenylenediamine	ND	U	570	32	25	11/18/08	11/20/08	JWG0804427	
4-Chloro-3-methylphenol	ND	U	150	22	25	11/18/08	11/20/08	JWG0804427	
2-Methylnaphthalene	ND	U	150	22	25	11/18/08	11/20/08	JWG0804427	
Hexachlorocyclopentadiene	ND	U	150	12	25	11/18/08	11/20/08	JWG0804427	
1,2,4,5-Tetrachlorobenzene	ND	U	150	16	25	11/18/08	11/20/08	JWG0804427	
Safrole	ND	U	150	21	25	11/18/08	11/20/08	JWG0804427	
2,4,6-Trichlorophenol	ND	U	150	21	25	11/18/08	11/20/08	JWG0804427	
2,4,5-Trichlorophenol	ND	U	150	19	25	11/18/08	11/20/08	JWG0804427	
Isosafrole	ND	U	150	22	25	11/18/08	11/20/08	JWG0804427	
2-Chloronaphthalene	ND	U	150	21	25	11/18/08	11/20/08	JWG0804427	
2-Nitroaniline	ND	U	150	16	25	11/18/08	11/20/08	JWG0804427	
1,4-Naphthoquinone	ND	U	290	40	25	11/18/08	11/20/08	JWG0804427	
1,3-Dinitrobenzene	ND	U	290	43	25	11/18/08	11/20/08	JWG0804427	
Acenaphthylene	ND	U	150	17	25	11/18/08	11/20/08	JWG0804427	
Dimethyl Phthalate	ND	U	150	22	25	11/18/08	11/20/08	JWG0804427	
2,6-Dinitrotoluene	ND	U	150	24	25	11/18/08	11/20/08	JWG0804427	
Acenaphthene	ND	U	150	29	25	11/18/08	11/20/08	JWG0804427	
3-Nitroaniline	ND	U	150	22	25	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrophenol	ND	U	570	16	25	11/18/08	11/20/08	JWG0804427	
Pentachlorobenzene	ND	U	150	69	25	11/18/08	11/20/08	JWG0804427	
Dibenzofuran	ND	U	150	23	25	11/18/08	11/20/08	JWG0804427	
4-Nitrophenol	ND	U	570	27	25	11/18/08	11/20/08	JWG0804427	
2,4-Dinitrotoluene	ND	U	150	120	25	11/18/08	11/20/08	JWG0804427	
2-Naphthylamine	ND	U	150	32	25	11/18/08	11/20/08	JWG0804427	
2,3,4,6-Tetrachlorophenol	ND	U	150	35	25	11/18/08	11/20/08	JWG0804427	
1-Naphthylamine	ND	U	150	32	25	11/18/08	11/20/08	JWG0804427	
Fluorene	ND	U	150	25	25	11/18/08	11/20/08	JWG0804427	
4-Chlorophenyl Phenyl Ether	ND	U	150	18	25	11/18/08	11/20/08	JWG0804427	
Thionazin	ND	U	290	24	25	11/18/08	11/20/08	JWG0804427	
Diethyl Phthalate	ND	U	150	120	25	11/18/08	11/20/08	JWG0804427	
5-Nitro-o-toluidine	ND	U	150	29	25	11/18/08	11/20/08	JWG0804427	
4-Nitroaniline	ND	U	150	27	25	11/18/08	11/20/08	JWG0804427	
2-Methyl-4,6-dinitrophenol	ND	UJ	570	19	25	11/18/08	11/20/08	JWG0804427	J(3)

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: L-5
Lab Code: J0805551-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine†	ND	U	150	28	25	11/18/08	11/20/08	JWG0804427	
Diallate	ND	U	150	29	25	11/18/08	11/20/08	JWG0804427	
Phorate	ND	U	150	25	25	11/18/08	11/20/08	JWG0804427	
1,3,5-Trinitrobenzene	ND	U	150	32	25	11/18/08	11/20/08	JWG0804427	
4-Bromophenyl Phenyl Ether	ND	U	150	20	25	11/18/08	11/20/08	JWG0804427	
Phenacetin	ND	U	150	26	25	11/18/08	11/20/08	JWG0804427	
Hexachlorobenzene	ND	U	150	18	25	11/18/08	11/20/08	JWG0804427	
Dimethoate	ND	U	150	26	25	11/18/08	11/20/08	JWG0804427	
4-Aminobiphenyl	ND	U	150	29	25	11/18/08	11/20/08	JWG0804427	
Pentachlorophenol	ND	U	570	20	25	11/18/08	11/20/08	JWG0804427	
Pentachloronitrobenzene	ND	U	150	43	25	11/18/08	11/20/08	JWG0804427	
Pronamide	ND	U	570	25	25	11/18/08	11/20/08	JWG0804427	
Phenanthrene	ND	U	150	20	25	11/18/08	11/20/08	JWG0804427	
Disulfoton	ND	U	150	15	25	11/18/08	11/20/08	JWG0804427	
Dinoseb	ND	U	150	18	25	11/18/08	11/20/08	JWG0804427	
Anthracene	ND	U	150	21	25	11/18/08	11/20/08	JWG0804427	
Methyl Parathion	ND	U	290	32	25	11/18/08	11/20/08	JWG0804427	
Di-n-butyl Phthalate	ND	U	150	28	25	11/18/08	11/20/08	JWG0804427	
Parathion	ND	U	570	27	25	11/18/08	11/20/08	JWG0804427	
Methapyrilene	ND	U	150	43	25	11/18/08	11/20/08	JWG0804427	
Isodrin	ND	U	290	21	25	11/18/08	11/20/08	JWG0804427	
Fluoranthene	ND	U	150	19	25	11/18/08	11/20/08	JWG0804427	
Pyrene	ND	U	150	24	25	11/18/08	11/20/08	JWG0804427	
Chlorobenzilate	ND	U	290	24	25	11/18/08	11/20/08	JWG0804427	
3,3'-Dimethylbenzidine	ND	UJ	570	66	25	11/18/08	11/20/08	JWG0804427	J(3)
Famphur	ND	U	290	20	25	11/18/08	11/20/08	JWG0804427	
p-Dimethylaminoazobenzene	ND	U	150	26	25	11/18/08	11/20/08	JWG0804427	
Butyl Benzyl Phthalate	ND	U	290	32	25	11/18/08	11/20/08	JWG0804427	
2-Acetylaminofluorene	ND	U	150	26	25	11/18/08	11/20/08	JWG0804427	
Kepone	ND	U	1500	120	25	11/18/08	11/20/08	JWG0804427	
3,3'-Dichlorobenzidine	ND	U	570	26	25	11/18/08	11/20/08	JWG0804427	
Benz(a)anthracene	ND	U	150	25	25	11/18/08	11/20/08	JWG0804427	
Chrysene	ND	U	150	25	25	11/18/08	11/20/08	JWG0804427	
Bis(2-ethylhexyl) Phthalate	ND	U	150	28	25	11/18/08	11/20/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	L-5	**Units:**	ug/L
Lab Code:	J0805551-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Di-n-octyl Phthalate	ND	U	150	27	25	11/18/08	11/20/08	JWG0804427	
Benzo(b)fluoranthene	ND	UJ	150	25	25	11/18/08	11/20/08	JWG0804427	J(3)
Benzo(k)fluoranthene	ND	U	150	16	25	11/18/08	11/20/08	JWG0804427	
7,12-Dimethylbenz(a)anthracene	ND	U	150	25	25	11/18/08	11/20/08	JWG0804427	
Benzo(a)pyrene	ND	U	150	18	25	11/18/08	11/20/08	JWG0804427	
3-Methylcholanthrene	ND	U	150	28	25	11/18/08	11/20/08	JWG0804427	
Indeno(1,2,3-cd)pyrene	ND	U	150	16	25	11/18/08	11/20/08	JWG0804427	
Dibenz(a,h)anthracene	ND	U	150	18	25	11/18/08	11/20/08	JWG0804427	
Benzo(g,h,i)perylene	ND	U	150	26	25	11/18/08	11/20/08	JWG0804427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	20	10-77	11/20/08	Acceptable
Phenol-d6	11	10-51	11/20/08	Acceptable
Nitrobenzene-d5	51	32-106	11/20/08	Acceptable
2-Fluorobiphenyl	42	30-102	11/20/08	Acceptable
2,4,6-Tribromophenol	0	30-143#	11/20/08	Outside Control Limits
Terphenyl-d14	41	23-165	11/20/08	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804427-1

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	5.0	0.73	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosomethylethylamine	ND	U	5.0	0.82	1	11/18/08	11/19/08	JWG0804427	
Methyl Methanesulfonate	ND	U	5.0	0.56	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosodiethylamine	ND	U	5.0	0.63	1	11/18/08	11/19/08	JWG0804427	
Ethyl Methanesulfonate	ND	U	5.0	0.65	1	11/18/08	11/19/08	JWG0804427	
Phenol	ND	U	5.0	0.42	1	11/18/08	11/19/08	JWG0804427	
Bis(2-chloroethyl) Ether	ND	U	5.0	0.96	1	11/18/08	11/19/08	JWG0804427	
2-Chlorophenol	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
1,3-Dichlorobenzene	ND	U	5.0	0.70	1	11/18/08	11/19/08	JWG0804427	
1,4-Dichlorobenzene	ND	U	5.0	1.2	1	11/18/08	11/19/08	JWG0804427	
1,2-Dichlorobenzene	ND	U	5.0	0.74	1	11/18/08	11/19/08	JWG0804427	
Bis(2-chloroisopropyl) Ether	ND	U	5.0	0.57	1	11/18/08	11/19/08	JWG0804427	
Benzyl alcohol	ND	U	5.0	0.69	1	11/18/08	11/19/08	JWG0804427	
2-Methylphenol	ND	U	5.0	0.64	1	11/18/08	11/19/08	JWG0804427	
Acetophenone	ND	U	10	1.3	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosopyrrolidine	ND	U	5.0	0.70	1	11/18/08	11/19/08	JWG0804427	
Hexachloroethane	ND	U	5.0	0.92	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosodi-n-propylamine	ND	U	5.0	0.68	1	11/18/08	11/19/08	JWG0804427	
o-Toluidine	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
4-Methylphenol†	ND	U	5.0	0.77	1	11/18/08	11/19/08	JWG0804427	
Nitrobenzene	ND	U	5.0	0.73	1	11/18/08	11/19/08	JWG0804427	
N-Nitrosopiperidine	ND	U	5.0	1.6	1	11/18/08	11/19/08	JWG0804427	
Isophorone	ND	U	5.0	0.80	1	11/18/08	11/19/08	JWG0804427	
2-Nitrophenol	ND	U	20	0.60	1	11/18/08	11/19/08	JWG0804427	
2,4-Dimethylphenol	ND	U	5.0	0.79	1	11/18/08	11/19/08	JWG0804427	
O,O,O-Triethyl Phosphorothioate	ND	U	20	0.52	1	11/18/08	11/19/08	JWG0804427	
bis(2-Chloroethoxy)methane	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
2,4-Dichlorophenol	ND	U	5.0	0.50	1	11/18/08	11/19/08	JWG0804427	
1,2,4-Trichlorobenzene	ND	U	5.0	0.78	1	11/18/08	11/19/08	JWG0804427	
Naphthalene	ND	U	5.0	0.79	1	11/18/08	11/19/08	JWG0804427	
2,6-Dichlorophenol	ND	U	10	0.72	1	11/18/08	11/19/08	JWG0804427	
Hexachloropropene	ND	U	5.0	1.9	1	11/18/08	11/19/08	JWG0804427	
4-Chloroaniline	ND	U	5.0	0.53	1	11/18/08	11/19/08	JWG0804427	
Hexachlorobutadiene	ND	U	5.0	0.61	1	11/18/08	11/19/08	JWG0804427	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804427-1	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodi-n-butylamine	ND	U	5.0	0.67	1	11/18/08	11/19/08	JWG0804427	
p-Phenylenediamine	ND	U	20	1.1	1	11/18/08	11/19/08	JWG0804427	
4-Chloro-3-methylphenol	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
2-Methylnaphthalene	ND	U	5.0	0.74	1	11/18/08	11/19/08	JWG0804427	
Hexachlorocyclopentadiene	ND	U	5.0	0.41	1	11/18/08	11/19/08	JWG0804427	
1,2,4,5-Tetrachlorobenzene	ND	U	5.0	0.55	1	11/18/08	11/19/08	JWG0804427	
Safrole	ND	U	5.0	0.71	1	11/18/08	11/19/08	JWG0804427	
2,4,6-Trichlorophenol	ND	U	5.0	0.73	1	11/18/08	11/19/08	JWG0804427	
2,4,5-Trichlorophenol	ND	U	5.0	0.65	1	11/18/08	11/19/08	JWG0804427	
Isosafrole	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
2-Chloronaphthalene	ND	U	5.0	0.71	1	11/18/08	11/19/08	JWG0804427	
2-Nitroaniline	ND	U	5.0	0.55	1	11/18/08	11/19/08	JWG0804427	
1,4-Naphthoquinone	ND	U	10	1.4	1	11/18/08	11/19/08	JWG0804427	
1,3-Dinitrobenzene	ND	U	10	1.5	1	11/18/08	11/19/08	JWG0804427	
Acenaphthylene	ND	U	5.0	0.58	1	11/18/08	11/19/08	JWG0804427	
Dimethyl Phthalate	ND	U	5.0	0.76	1	11/18/08	11/19/08	JWG0804427	
2,6-Dinitrotoluene	ND	U	5.0	0.83	1	11/18/08	11/19/08	JWG0804427	
Acenaphthene	ND	U	5.0	0.99	1	11/18/08	11/19/08	JWG0804427	
3-Nitroaniline	ND	U	5.0	0.75	1	11/18/08	11/19/08	JWG0804427	
2,4-Dinitrophenol	ND	U	20	0.54	1	11/18/08	11/19/08	JWG0804427	
Pentachlorobenzene	ND	U	5.0	2.4	1	11/18/08	11/19/08	JWG0804427	
Dibenzofuran	ND	U	5.0	0.79	1	11/18/08	11/19/08	JWG0804427	
4-Nitrophenol	ND	U	20	0.93	1	11/18/08	11/19/08	JWG0804427	
2,4-Dinitrotoluene	ND	U	5.0	4.1	1	11/18/08	11/19/08	JWG0804427	
2-Naphthylamine	ND	U	5.0	1.1	1	11/18/08	11/19/08	JWG0804427	
2,3,4,6-Tetrachlorophenol	ND	U	5.0	1.2	1	11/18/08	11/19/08	JWG0804427	
1-Naphthylamine	ND	U	5.0	1.1	1	11/18/08	11/19/08	JWG0804427	
Fluorene	ND	U	5.0	0.88	1	11/18/08	11/19/08	JWG0804427	
4-Chlorophenyl Phenyl Ether	ND	U	5.0	0.61	1	11/18/08	11/19/08	JWG0804427	
Thionazin	ND	U	10	0.81	1	11/18/08	11/19/08	JWG0804427	
Diethyl Phthalate	ND	U	5.0	4.1	1	11/18/08	11/19/08	JWG0804427	
5-Nitro-o-toluidine	ND	U	5.0	1.0	1	11/18/08	11/19/08	JWG0804427	
4-Nitroaniline	ND	U	5.0	0.92	1	11/18/08	11/19/08	JWG0804427	
2-Methyl-4,6-dinitrophenol	ND	UJ	20	0.64	1	11/18/08	11/19/08	JWG0804427	J(3)

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804427-1

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine†	ND	U	5.0	0.96	1	11/18/08	11/19/08	JWG0804427	
Diallate	ND	U	5.0	1.0	1	11/18/08	11/19/08	JWG0804427	
Phorate	ND	U	5.0	0.88	1	11/18/08	11/19/08	JWG0804427	
1,3,5-Trinitrobenzene	ND	U	5.0	1.1	1	11/18/08	11/19/08	JWG0804427	
4-Bromophenyl Phenyl Ether	ND	U	5.0	0.67	1	11/18/08	11/19/08	JWG0804427	
Phenacetin	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
Hexachlorobenzene	ND	U	5.0	0.63	1	11/18/08	11/19/08	JWG0804427	
Dimethoate	ND	U	5.0	0.90	1	11/18/08	11/19/08	JWG0804427	
4-Aminobiphenyl	ND	U	5.0	0.99	1	11/18/08	11/19/08	JWG0804427	
Pentachlorophenol	ND	U	20	0.67	1	11/18/08	11/19/08	JWG0804427	
Pentachloronitrobenzene	ND	U	5.0	1.5	1	11/18/08	11/19/08	JWG0804427	
Pronamide	ND	U	20	0.85	1	11/18/08	11/19/08	JWG0804427	
Phenanthrene	ND	U	5.0	0.70	1	11/18/08	11/19/08	JWG0804427	
Disulfoton	ND	U	5.0	0.52	1	11/18/08	11/19/08	JWG0804427	
Dinoseb	ND	U	5.0	0.61	1	11/18/08	11/19/08	JWG0804427	
Anthracene	ND	U	5.0	0.71	1	11/18/08	11/19/08	JWG0804427	
Methyl Parathion	ND	U	10	1.1	1	11/18/08	11/19/08	JWG0804427	
Di-n-butyl Phthalate	ND	U	5.0	0.97	1	11/18/08	11/19/08	JWG0804427	
Parathion	ND	U	20	0.93	1	11/18/08	11/19/08	JWG0804427	
Methapyrilene	ND	U	5.0	1.5	1	11/18/08	11/19/08	JWG0804427	
Isodrin	ND	U	10	0.71	1	11/18/08	11/19/08	JWG0804427	
Fluoranthene	ND	U	5.0	0.66	1	11/18/08	11/19/08	JWG0804427	
Pyrene	ND	U	5.0	0.84	1	11/18/08	11/19/08	JWG0804427	
Chlorobenzilate	ND	U	10	0.84	1	11/18/08	11/19/08	JWG0804427	
3,3'-Dimethylbenzidine	ND	UJ	20	2.3	1	11/18/08	11/19/08	JWG0804427	J(3)
Famphur	ND	U	10	0.69	1	11/18/08	11/19/08	JWG0804427	
p-Dimethylaminoazobenzene	ND	U	5.0	0.89	1	11/18/08	11/19/08	JWG0804427	
Butyl Benzyl Phthalate	ND	U	10	1.1	1	11/18/08	11/19/08	JWG0804427	
2-Acetylaminofluorene	ND	U	5.0	0.90	1	11/18/08	11/19/08	JWG0804427	
Kepone	ND	U	50	4.2	1	11/18/08	11/19/08	JWG0804427	
3,3'-Dichlorobenzidine	ND	U	20	0.89	1	11/18/08	11/19/08	JWG0804427	
Benz(a)anthracene	ND	U	5.0	0.86	1	11/18/08	11/19/08	JWG0804427	
Chrysene	ND	U	5.0	0.87	1	11/18/08	11/19/08	JWG0804427	
Bis(2-ethylhexyl) Phthalate	ND	U	5.0	0.98	1	11/18/08	11/19/08	JWG0804427	

Comments:

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Sample Name: Method Blank
Lab Code: JWG0804427-1

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Di-n-octyl Phthalate	ND	U	5.0	0.95	1	11/18/08	11/19/08	JWG0804427	
Benzo(b)fluoranthene	ND	UJ	5.0	0.87	1	11/18/08	11/19/08	JWG0804427	J(3)
Benzo(k)fluoranthene	ND	U	5.0	0.54	1	11/18/08	11/19/08	JWG0804427	
7,12-Dimethylbenz(a)anthracene	ND	U	5.0	0.87	1	11/18/08	11/19/08	JWG0804427	
Benzo(a)pyrene	ND	U	5.0	0.63	1	11/18/08	11/19/08	JWG0804427	
3-Methylcholanthrene	ND	U	5.0	0.97	1	11/18/08	11/19/08	JWG0804427	
Indeno(1,2,3-cd)pyrene	ND	U	5.0	0.55	1	11/18/08	11/19/08	JWG0804427	
Dibenz(a,h)anthracene	ND	U	5.0	0.62	1	11/18/08	11/19/08	JWG0804427	
Benzo(g,h,i)perylene	ND	U	5.0	0.91	1	11/18/08	11/19/08	JWG0804427	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	25	10-77	11/19/08	Acceptable
Phenol-d6	20	10-51	11/19/08	Acceptable
Nitrobenzene-d5	68	32-106	11/19/08	Acceptable
2-Fluorobiphenyl	55	30-102	11/19/08	Acceptable
2,4,6-Tribromophenol	74	30-143	11/19/08	Acceptable
Terphenyl-d14	73	23-165	11/19/08	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Organochlorine Pesticides by GC-ECD

Sample Name:	L-1	**Units:**	ug/L
Lab Code:	J0805551-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.024	0.0092	1	11/16/08	11/21/08	JWG0804383	
gamma-BHC (Lindane)	ND	U	0.024	0.0096	1	11/16/08	11/21/08	JWG0804383	
beta-BHC	ND	U	0.024	0.0099	1	11/16/08	11/21/08	JWG0804383	
delta-BHC	ND	U	0.024	0.013	1	11/16/08	11/21/08	JWG0804383	
Heptachlor	ND	U	0.024	0.012	1	11/16/08	11/21/08	JWG0804383	
Aldrin	ND	U	0.024	0.0080	1	11/16/08	11/21/08	JWG0804383	
Heptachlor Epoxide	ND	U	0.024	0.0092	1	11/16/08	11/21/08	JWG0804383	
gamma-Chlordane	ND	U	0.024	0.0088	1	11/16/08	11/21/08	JWG0804383	
alpha-Chlordane	ND	U	0.024	0.0077	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDE	ND	U	0.024	0.0098	1	11/16/08	11/21/08	JWG0804383	
Endosulfan I	ND	U	0.024	0.011	1	11/16/08	11/21/08	JWG0804383	
Dieldrin	ND	U	0.024	0.0085	1	11/16/08	11/21/08	JWG0804383	
Endrin	ND	U	0.024	0.011	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDD	ND	U	0.024	0.0092	1	11/16/08	11/21/08	JWG0804383	
Endosulfan II	ND	U	0.24	0.24	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDT	ND	U	0.024	0.016	1	11/16/08	11/21/08	JWG0804383	
Endrin Aldehyde	ND	U	0.024	0.0099	1	11/16/08	11/21/08	JWG0804383	
Methoxychlor	ND	U	0.047	0.013	1	11/16/08	11/21/08	JWG0804383	
Endosulfan Sulfate	ND	U	0.024	0.011	1	11/16/08	11/21/08	JWG0804383	
Endrin Ketone	ND	U	0.024	0.0062	1	11/16/08	11/21/08	JWG0804383	
Toxaphene	ND	U	0.59	0.59	1	11/16/08	11/21/08	JWG0804383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	9	32-92	11/21/08	Outside Control Limits
Decachlorobiphenyl	3	13-104	11/21/08	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Organochlorine Pesticides by GC-ECD

Sample Name:	L-4	**Units:**	ug/L
Lab Code:	J0805551-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.023	0.0090	1	11/16/08	11/21/08	JWG0804383	
gamma-BHC (Lindane)	ND	U	0.023	0.0094	1	11/16/08	11/21/08	JWG0804383	
beta-BHC	ND	U	0.023	0.0097	1	11/16/08	11/21/08	JWG0804383	
delta-BHC	ND	U	0.023	0.013	1	11/16/08	11/21/08	JWG0804383	
Heptachlor	ND	U	0.023	0.011	1	11/16/08	11/21/08	JWG0804383	
Aldrin	ND	U	0.023	0.0078	1	11/16/08	11/21/08	JWG0804383	
Heptachlor Epoxide	ND	U	0.023	0.0090	1	11/16/08	11/21/08	JWG0804383	
gamma-Chlordane	ND	U	0.023	0.0086	1	11/16/08	11/21/08	JWG0804383	
alpha-Chlordane	ND	U	0.023	0.0075	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDE	ND	U	0.023	0.0096	1	11/16/08	11/21/08	JWG0804383	
Endosulfan I	ND	U	0.023	0.011	1	11/16/08	11/21/08	JWG0804383	
Dieldrin	ND	U	0.023	0.0083	1	11/16/08	11/21/08	JWG0804383	
Endrin	ND	U	0.023	0.011	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDD	ND	U	0.023	0.0090	1	11/16/08	11/21/08	JWG0804383	
Endosulfan II	ND	U	0.23	0.23	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDT	ND	U	0.023	0.015	1	11/16/08	11/21/08	JWG0804383	
Endrin Aldehyde	ND	U	0.023	0.0097	1	11/16/08	11/21/08	JWG0804383	
Methoxychlor	ND	U	0.046	0.013	1	11/16/08	11/21/08	JWG0804383	
Endosulfan Sulfate	ND	U	0.023	0.011	1	11/16/08	11/21/08	JWG0804383	
Endrin Ketone	ND	U	0.023	0.0061	1	11/16/08	11/21/08	JWG0804383	
Toxaphene	ND	U	0.57	0.57	1	11/16/08	11/21/08	JWG0804383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	21	32-92	11/21/08	Outside Control Limits
Decachlorobiphenyl	4	13-104	11/21/08	Outside Control Limits

Comments:

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Organochlorine Pesticides by GC-ECD

Sample Name:	L-5	**Units:**	ug/L
Lab Code:	J0805551-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.024	0.0092	1	11/16/08	11/25/08	JWG0804383	
gamma-BHC (Lindane)	ND	U	0.024	0.0096	1	11/16/08	11/25/08	JWG0804383	
beta-BHC	ND	U	0.024	0.0099	1	11/16/08	11/25/08	JWG0804383	
delta-BHC	ND	U	0.024	0.013	1	11/16/08	11/25/08	JWG0804383	
Heptachlor	ND	U	0.024	0.012	1	11/16/08	11/25/08	JWG0804383	
Aldrin	ND	U	0.024	0.0080	1	11/16/08	11/25/08	JWG0804383	
Heptachlor Epoxide	ND	U	0.024	0.0092	1	11/16/08	11/25/08	JWG0804383	
gamma-Chlordane	ND	U	0.024	0.0088	1	11/16/08	11/25/08	JWG0804383	
alpha-Chlordane	ND	U	0.024	0.0077	1	11/16/08	11/25/08	JWG0804383	
4,4'-DDE	ND	U	0.024	0.0098	1	11/16/08	11/25/08	JWG0804383	
Endosulfan I	ND	U	0.024	0.011	1	11/16/08	11/25/08	JWG0804383	
Dieldrin	ND	U	0.024	0.0085	1	11/16/08	11/25/08	JWG0804383	
Endrin	ND	U	0.024	0.011	1	11/16/08	11/25/08	JWG0804383	
4,4'-DDD	ND	U	0.024	0.0092	1	11/16/08	11/25/08	JWG0804383	
Endosulfan II	ND	U	0.24	0.24	1	11/16/08	11/25/08	JWG0804383	
4,4'-DDT	ND	U	0.024	0.016	1	11/16/08	11/25/08	JWG0804383	
Endrin Aldehyde	ND	U	0.024	0.0099	1	11/16/08	11/25/08	JWG0804383	
Methoxychlor	ND	U	0.047	0.013	1	11/16/08	11/25/08	JWG0804383	
Endosulfan Sulfate	ND	U	0.024	0.011	1	11/16/08	11/25/08	JWG0804383	
Endrin Ketone	ND	U	0.024	0.0062	1	11/16/08	11/25/08	JWG0804383	
Toxaphene	ND	U	0.59	0.59	1	11/16/08	11/25/08	JWG0804383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	61	32-92	11/25/08	Acceptable
Decachlorobiphenyl	53	13-104	11/25/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804383-2	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.020	0.0079	1	11/16/08	11/21/08	JWG0804383	
gamma-BHC (Lindane)	ND	U	0.020	0.0082	1	11/16/08	11/21/08	JWG0804383	
beta-BHC	ND	U	0.020	0.0085	1	11/16/08	11/21/08	JWG0804383	
delta-BHC	ND	U	0.020	0.011	1	11/16/08	11/21/08	JWG0804383	
Heptachlor	ND	U	0.020	0.0096	1	11/16/08	11/21/08	JWG0804383	
Aldrin	ND	U	0.020	0.0068	1	11/16/08	11/21/08	JWG0804383	
Heptachlor Epoxide	ND	U	0.020	0.0079	1	11/16/08	11/21/08	JWG0804383	
gamma-Chlordane	ND	U	0.020	0.0075	1	11/16/08	11/21/08	JWG0804383	
alpha-Chlordane	ND	U	0.020	0.0066	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDE	ND	U	0.020	0.0084	1	11/16/08	11/21/08	JWG0804383	
Endosulfan I	ND	U	0.020	0.0089	1	11/16/08	11/21/08	JWG0804383	
Dieldrin	ND	U	0.020	0.0073	1	11/16/08	11/21/08	JWG0804383	
Endrin	ND	U	0.020	0.0090	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDD	ND	U	0.020	0.0079	1	11/16/08	11/21/08	JWG0804383	
Endosulfan II	ND	U	0.20	0.20	1	11/16/08	11/21/08	JWG0804383	
4,4'-DDT	ND	U	0.020	0.013	1	11/16/08	11/21/08	JWG0804383	
Endrin Aldehyde	ND	U	0.020	0.0085	1	11/16/08	11/21/08	JWG0804383	
Methoxychlor	ND	U	0.040	0.011	1	11/16/08	11/21/08	JWG0804383	
Endosulfan Sulfate	ND	U	0.020	0.0092	1	11/16/08	11/21/08	JWG0804383	
Endrin Ketone	ND	U	0.020	0.0053	1	11/16/08	11/21/08	JWG0804383	
Toxaphene	ND	U	0.50	0.50	1	11/16/08	11/21/08	JWG0804383	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	46	32-92	11/21/08	Acceptable
Decachlorobiphenyl	50	13-104	11/21/08	Acceptable

Comments:

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Sample Name:	L-1	**Units:**	ug/L
Lab Code:	J0805551-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.59	0.16	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1221	ND	U	0.59	0.26	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1232	ND	U	0.59	0.27	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1242	ND	U	0.59	0.14	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1248	ND	U	0.59	0.31	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1254	ND	U	0.59	0.44	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1260	ND	U	0.59	0.20	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1262	ND	U	0.59	0.20	1	11/16/08	11/21/08	JWG0804384	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	4	24-120	11/21/08	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	11/13/2008
Sample Matrix:	Water	**Date Received:**	11/14/2008

Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Sample Name:	L-4	**Units:**	ug/L
Lab Code:	J0805551-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.57	0.15	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1221	ND	U	0.57	0.25	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1232	ND	U	0.57	0.27	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1242	ND	U	0.57	0.14	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1248	ND	U	0.57	0.30	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1254	ND	U	0.57	0.43	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1260	ND	U	0.57	0.20	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1262	ND	U	0.57	0.20	1	11/16/08	11/21/08	JWG0804384	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	5	24-120	11/21/08	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Sample Name: L-5
Lab Code: J0805551-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8082

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.59	0.16	1	11/16/08	11/25/08	JWG0804384	
Aroclor 1221	ND	U	0.59	0.26	1	11/16/08	11/25/08	JWG0804384	
Aroclor 1232	ND	U	0.59	0.27	1	11/16/08	11/25/08	JWG0804384	
Aroclor 1242	ND	U	0.59	0.14	1	11/16/08	11/25/08	JWG0804384	
Aroclor 1248	ND	U	0.59	0.31	1	11/16/08	11/25/08	JWG0804384	
Aroclor 1254	ND	U	0.59	0.44	1	11/16/08	11/25/08	JWG0804384	
Aroclor 1260	ND	U	0.59	0.20	1	11/16/08	11/25/08	JWG0804384	
Aroclor 1262	ND	U	0.59	0.20	1	11/16/08	11/25/08	JWG0804384	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	53	24-120	11/25/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0804384-4	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.50	0.13	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1221	ND	U	0.50	0.22	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1232	ND	U	0.50	0.23	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1242	ND	U	0.50	0.12	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1248	ND	U	0.50	0.26	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1254	ND	U	0.50	0.37	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1260	ND	U	0.50	0.17	1	11/16/08	11/21/08	JWG0804384	
Aroclor 1262	ND	U	0.50	0.17	1	11/16/08	11/21/08	JWG0804384	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	63	24-120	11/21/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Total Metals

Sample Name: L-1
Lab Code: J0805551-001

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	12/05/2008	24	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	12/05/2008	24	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	12/05/2008	912	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	1.9	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	12/05/2008	2.8	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	12/05/2008	314	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	16	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	11	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/25/2005	11/26/2008	5150	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	73	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.14	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	252	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	12/05/2008	34	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	12/05/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	U	
Tin	EPA 3020A	6020	5.0	0.3	1.0	11/21/2008	12/05/2008	8.3	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	12/05/2008	472	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	12/05/2008	26	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Total Metals

Sample Name: L-4
Lab Code: J0805551-002

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	12/05/2008	39	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	12/05/2008	36	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	12/05/2008	469	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	1.9	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	12/05/2008	6.1	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	12/05/2008	538	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	21	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	46	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/25/2005	11/26/2008	2130	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	49	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.18	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	110	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	12/05/2008	85	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	12/05/2008	0.10	i
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	U	
Tin	EPA 3020A	6020	5.0	0.3	1.0	11/21/2008	12/05/2008	13	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	12/05/2008	691	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	12/05/2008	39	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805551
Date Collected: 11/13/2008
Date Received: 11/14/2008

Total Metals

Sample Name: L-5
Lab Code: J0805551-003

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	12/05/2008	3.4	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	12/05/2008	13	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	12/05/2008	244	
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	0.4	i
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	12/05/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	12/05/2008	24	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	2.0	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	7.6	
Iron	EPA 3010A	6010B	50	4.0	1.0	11/25/2005	11/26/2008	18900	
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	2.4	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.09	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	58	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	12/05/2008	5.1	
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	12/05/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	U	
Tin	EPA 3020A	6020	5.0	0.3	1.0	11/21/2008	12/05/2008	0.8	i
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	12/05/2008	64	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	12/05/2008	27	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: GeoSyntec Consultants
Project Name: JED SWDF
Project Number: FQ1512
Matrix: WATER

Service Request: J0805551
Date Collected: N/A
Date Received: N/A

Total Metals

Sample Name: Method Blank
Lab Code: MB3-1121

Units: ug/L
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Antimony	EPA 3020A	6020	2.0	0.4	1.0	11/21/2008	12/05/2008	U	
Arsenic	EPA 3020A	6020	0.50	0.20	1.0	11/21/2008	12/05/2008	U	
Barium	EPA 3020A	6020	2.0	0.5	1.0	11/21/2008	12/05/2008	1.1	i
Beryllium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	U	
Cadmium	EPA 3020A	6020	0.50	0.12	1.0	11/21/2008	12/05/2008	U	
Chromium	EPA 3020A	6020	2.0	0.8	1.0	11/21/2008	12/05/2008	U	
Cobalt	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	U	
Copper	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	U	
Iron	EPA 3010A	6010B	50.0	4.0	1.0	11/25/2005	11/26/2008	17.0	i
Lead	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	U	
Mercury	METHOD	7470A	0.50	0.08	1.0	11/18/2008	11/18/2008	0.08	i
Nickel	EPA 3020A	6020	2.0	0.3	1.0	11/21/2008	12/05/2008	U	
Selenium	EPA 3020A	6020	2.0	0.7	1.0	11/21/2008	12/05/2008	0.8	i
Silver	EPA 3020A	6020	0.50	0.08	1.0	11/21/2008	12/05/2008	U	
Thallium	EPA 3020A	6020	1.0	0.2	1.0	11/21/2008	12/05/2008	U	
Tin	EPA 3020A	6020	5.0	0.3	1.0	11/21/2008	12/05/2008	U	
Vanadium	EPA 3020A	6020	5.0	1.2	1.0	11/21/2008	12/05/2008	U	
Zinc	EPA 3020A	6020	10	4	1.0	11/21/2008	12/05/2008	6	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	GeoSyntec Consultants		
Project Name:	JED SWDF	**Service Request:**	J0805551
Project Number:	FQ1512	**Date Collected:**	11/13/2008
Matrix:	WATER	**Date Received:**	11/14/2008

Total Metals
Sodium

Prep Method:	EPA 3010A	**Units:**	mg/L
Analysis Method:	6010B	**Basis:**	N/A
Test Notes:			

Sample Name:	Lab Code:	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
L-1	J0805551-001	10	0.40	20.0	11/25/2008	11/26/2008	2190	
L-4	J0805551-002	10	0.40	20.0	11/25/2008	11/26/2008	1290	
L-5	J0805551-003	0.50	0.02	1.0	11/25/2008	11/26/2008	475	
Method Blank	MB6-1125	0.50	0.02	1.0	11/25/2008	11/26/2008	U	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805551
Date Collected : 11/13/08
Date Received : 11/14/08

Inorganic Parameters

Sample Name : L-1
Lab Code : J0805551-001
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	50	16	10	11/24/08 14:00	2800	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5	2	100	11/17/08 13:11	720	
Chloride	mg/L (ppm)	300.0	20	3.1	100	12/01/08 18:41	4100	
Cyanide, Total	mg/L (ppm)	335.4	0.01	0.004	1	11/26/08 14:28	0.020	
Nitrate as Nitrogen	mg/L (ppm)	300.0	2	0.38	10	11/14/08 17:15	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	100	48	10	11/19/08 17:35	13000	
Sulfide	mg/L (ppm)	376.1	2	0.38	1	11/20/08 17:15	4.4	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805551
Date Collected : 11/13/08
Date Received : 11/14/08

Inorganic Parameters

Sample Name : L-4
Lab Code : J0805551-002
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	50	16	10	11/24/08 14:00	2600	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5	2	100	11/17/08 13:11	780	
Chloride	mg/L (ppm)	300.0	20	3.1	100	12/01/08 18:41	2300	
Cyanide, Total	mg/L (ppm)	335.4	0.01	0.004	1	11/26/08 14:28	0.038	
Nitrate as Nitrogen	mg/L (ppm)	300.0	2	0.38	10	11/14/08 17:30	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	40	19	4.0	11/19/08 17:35	11000	
Sulfide	mg/L (ppm)	376.1	2	0.38	1	11/20/08 17:15	5.2	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805551
Date Collected : 11/13/08
Date Received : 11/14/08

Inorganic Parameters

Sample Name : L-5
Lab Code : J0805551-003
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	10	3.2	2.5	11/24/08 14:00	880	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5	2	100	11/17/08 13:11	210	
Chloride	mg/L (ppm)	300.0	2	0.31	10	11/14/08 13:31	830	
Cyanide, Total	mg/L (ppm)	335.4	0.01	0.004	1	11/26/08 14:28	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	2	0.38	10	11/14/08 17:45	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	20	9.6	2.5	11/19/08 17:35	3700	
Sulfide	mg/L (ppm)	376.1	2	0.38	1	11/20/08 17:15	13	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805551
Date Collected : NA
Date Received : NA

Inorganic Parameters

Sample Name : Method Blank
Lab Code : J0805551-MB
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	5	1.6	1	11/24/08 14:00	U	
Ammonia as Nitrogen	mg/L (ppm)	350.1	0.05	0.02	1	11/17/08 13:11	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	12/01/08 18:41	U	
Chloride	mg/L (ppm)	300.0	0.2	0.031	1	11/14/08 13:31	U	
Cyanide, Total	mg/L (ppm)	335.4	0.01	0.004	1	11/26/08 14:28	U	
Nitrate as Nitrogen	mg/L (ppm)	300.0	0.2	0.038	1	11/14/08 13:31	U	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	10	4.8	1	11/19/08 17:35	U	
Sulfide	mg/L (ppm)	376.1	2	0.38	1	11/20/08 17:15	U	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551

Surrogate Recovery Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
L-1	J0805551-001	94	94	99	105
L-4	J0805551-002	99	94	98	95
L-5	J0805551-003	106	96	101	95
Trip Blank	J0805551-004	93	92	99	105
Method Blank	JWG0804446-4	98	100	97	95
Method Blank	JWG0804466-3	92	92	99	106
Lab Control Sample	JWG0804446-3	97	93	100	97
Lab Control Sample	JWG0804466-2	94	92	97	105

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/18/2008
Sample Matrix:	Water	**Date Analyzed:**	11/18/2008

Lab Control Spike Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804446

	Lab Control Sample JWG0804446-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	19.1	20.0	95	69-138
Chloromethane	19.0	20.0	95	67-135
Vinyl Chloride	19.9	20.0	100	78-132
Bromomethane	18.0	20.0	90	79-130
Chloroethane	20.7	20.0	104	74-126
Trichlorofluoromethane	19.5	20.0	97	74-134
Acrolein	106	100	106	61-137
1,1-Dichloroethene	21.6	20.0	108	78-130
Acetone	110	100	110	67-133
Iodomethane (Methyl Iodide)	77.9	100	78	68-134
Carbon Disulfide	105	100	105	76-138
Acetonitrile	120	100	120	67-132
Allyl Chloride	22.3	20.0	111	68-128
Methylene Chloride	20.0	20.0	100	72-124
Acrylonitrile	117	100	117	77-127
trans-1,2-Dichloroethene	20.9	20.0	104	77-124
1,1-Dichloroethane	19.3	20.0	96	80-128
Vinyl Acetate	113	100	113	61-148
Chloroprene	19.6	20.0	98	81-132
cis-1,2-Dichloroethene	19.7	20.0	99	80-126
2,2-Dichloropropane	20.1	20.0	100	72-136
1,1-Dichloropropene	21.2	20.0	106	85-124
2-Butanone (MEK)	113	100	113	73-127
Propionitrile	112	100	112	77-131
Bromochloromethane	21.5	20.0	107	79-129
Methacrylonitrile	24.8	20.0	124	77-129
Chloroform	20.1	20.0	101	83-124
1,1,1-Trichloroethane (TCA)	21.0	20.0	105	79-124
Carbon Tetrachloride	20.5	20.0	103	81-125
Benzene	19.7	20.0	98	79-119
1,2-Dichloroethane (EDC)	19.9	20.0	100	80-124
Isobutyl Alcohol	574	400	143 *	62-139
Trichloroethene (TCE)	19.9	20.0	100	76-124
1,2-Dichloropropane	21.3	20.0	106	79-123
Dibromomethane	19.9	20.0	100	83-123
Methyl Methacrylate	25.5	20.0	128	79-128

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Extracted: 11/18/2008
Date Analyzed: 11/18/2008

Lab Control Spike Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804446

Analyte Name	Lab Control Sample JWG0804446-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Bromodichloromethane	19.3	20.0	97	81-123
cis-1,3-Dichloropropene	19.7	20.0	98	86-123
4-Methyl-2-pentanone (MIBK)	110	100	110	72-136
Toluene	19.5	20.0	98	86-117
trans-1,3-Dichloropropene	20.6	20.0	103	83-124
Ethyl Methacrylate	26.8	20.0	134 *	78-127
1,1,2-Trichloroethane	20.1	20.0	101	86-114
Tetrachloroethene (PCE)	19.1	20.0	95	80-121
1,3-Dichloropropane	19.9	20.0	100	88-117
2-Hexanone	114	100	114	71-138
Dibromochloromethane	19.6	20.0	98	82-121
1,2-Dibromoethane (EDB)	19.9	20.0	99	88-117
Chlorobenzene	19.4	20.0	97	86-113
1,1,1,2-Tetrachloroethane	19.7	20.0	99	85-117
Ethylbenzene	19.8	20.0	99	90-118
m,p-Xylenes	40.8	40.0	102	86-121
o-Xylene	20.1	20.0	100	89-119
Styrene	19.6	20.0	98	89-122
Bromoform	20.0	20.0	100	68-129
1,1,2,2-Tetrachloroethane	21.4	20.0	107	83-120
1,2,3-Trichloropropane	21.6	20.0	108	83-123
trans-1,4-Dichloro-2-butene	33.4	20.0	167 *	53-143
1,3-Dichlorobenzene	20.1	20.0	101	83-112
1,4-Dichlorobenzene	20.2	20.0	101	83-113
1,2-Dichlorobenzene	20.9	20.0	105	84-115
1,2-Dibromo-3-chloropropane (DBCP	23.1	20.0	116	62-123
1,2,4-Trichlorobenzene	22.9	20.0	114	72-123
Hexachlorobutadiene	19.3	20.0	97	73-140
Naphthalene	26.3	20.0	132	59-135

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Extracted: 11/19/2008
Date Analyzed: 11/19/2008

Lab Control Spike Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804466

Analyte Name	Lab Control Sample JWG0804466-2 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Dichlorodifluoromethane	17.3	20.0	86	69-138
Chloromethane	21.3	20.0	107	67-135
Vinyl Chloride	19.2	20.0	96	78-132
Bromomethane	21.2	20.0	106	79-130
Chloroethane	18.8	20.0	94	74-126
Trichlorofluoromethane	19.2	20.0	96	74-134
Acrolein	94.4	100	94	61-137
1,1-Dichloroethene	19.1	20.0	96	78-130
Acetone	104	100	104	67-133
Iodomethane (Methyl Iodide)	102	100	102	68-134
Carbon Disulfide	98.1	100	98	76-138
Acetonitrile	104	100	104	67-132
Allyl Chloride	20.6	20.0	103	68-128
Methylene Chloride	20.3	20.0	102	72-124
Acrylonitrile	105	100	105	77-127
trans-1,2-Dichloroethene	20.5	20.0	102	77-124
1,1-Dichloroethane	20.4	20.0	102	80-128
Vinyl Acetate	108	100	108	61-148
Chloroprene	17.6	20.0	88	81-132
cis-1,2-Dichloroethene	20.7	20.0	103	80-126
2,2-Dichloropropane	19.9	20.0	99	72-136
1,1-Dichloropropene	18.7	20.0	93	85-124
2-Butanone (MEK)	101	100	101	73-127
Propionitrile	99.7	100	100	77-131
Bromochloromethane	20.9	20.0	104	79-129
Methacrylonitrile	21.7	20.0	108	77-129
Chloroform	20.0	20.0	100	83-124
1,1,1-Trichloroethane (TCA)	19.0	20.0	95	79-124
Carbon Tetrachloride	19.1	20.0	96	81-125
Benzene	19.4	20.0	97	79-119
1,2-Dichloroethane (EDC)	20.5	20.0	102	80-124
Isobutyl Alcohol	356	400	89	62-139
Trichloroethene (TCE)	20.2	20.0	101	76-124
1,2-Dichloropropane	20.4	20.0	102	79-123
Dibromomethane	21.7	20.0	108	83-123
Methyl Methacrylate	21.5	20.0	107	79-128

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Extracted: 11/19/2008
Date Analyzed: 11/19/2008

Lab Control Spike Summary
Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804466

Analyte Name	Lab Control Sample JWG0804466-2 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Bromodichloromethane	20.3	20.0	101	81-123
cis-1,3-Dichloropropene	20.2	20.0	101	86-123
4-Methyl-2-pentanone (MIBK)	111	100	111	72-136
Toluene	19.7	20.0	99	86-117
trans-1,3-Dichloropropene	20.6	20.0	103	83-124
Ethyl Methacrylate	21.9	20.0	110	78-127
1,1,2-Trichloroethane	21.2	20.0	106	86-114
Tetrachloroethene (PCE)	19.4	20.0	97	80-121
1,3-Dichloropropane	20.3	20.0	101	88-117
2-Hexanone	109	100	109	71-138
Dibromochloromethane	19.6	20.0	98	82-121
1,2-Dibromoethane (EDB)	20.8	20.0	104	88-117
Chlorobenzene	19.7	20.0	99	86-113
1,1,1,2-Tetrachloroethane	19.9	20.0	100	85-117
Ethylbenzene	19.8	20.0	99	90-118
m,p-Xylenes	39.1	40.0	98	86-121
o-Xylene	19.7	20.0	98	89-119
Styrene	19.3	20.0	96	89-122
Bromoform	19.4	20.0	97	68-129
1,1,2,2-Tetrachloroethane	19.7	20.0	98	83-120
1,2,3-Trichloropropane	21.1	20.0	106	83-123
trans-1,4-Dichloro-2-butene	17.6	20.0	88	53-143
1,3-Dichlorobenzene	18.6	20.0	93	83-112
1,4-Dichlorobenzene	18.3	20.0	91	83-113
1,2-Dichlorobenzene	19.5	20.0	97	84-115
1,2-Dibromo-3-chloropropane (DBCP	20.6	20.0	103	62-123
1,2,4-Trichlorobenzene	22.1	20.0	111	72-123
Hexachlorobutadiene	22.3	20.0	112	73-140
Naphthalene	24.4	20.0	122	59-135

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551

Surrogate Recovery Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method: METHOD
Analysis Method: 8011

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
L-1	J0805551-001	120
L-4	J0805551-002	118
L-5	J0805551-003	118
Method Blank	JWG0804358-4	132
Lab Control Sample	JWG0804358-3	131

Surrogate Recovery Control Limits (%)

Sur1 = 1,1,1,2-Tetrachloroethane 77-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/16/2008
Sample Matrix:	Water	**Date Analyzed:**	11/18/2008

Lab Control Spike Summary
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by GC-ECD

Extraction Method:	METHOD	**Units:**	ug/L
Analysis Method:	8011	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804358

	Lab Control Sample JWG0804358-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
1,2-Dibromoethane (EDB)	0.322	0.250	129	70-130
1,2-Dibromo-3-chloropropane (DBCP	0.303	0.250	121	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 3510C
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
L-1	J0805551-001	18	15	51	31	41	15 #
L-4	J0805551-002	19	19	59	38	48	28
L-5	J0805551-003	20 D #	11 D #	51 D #	42 D #	0 D #	41 D #
Method Blank	JWG0804427-1	25	20	68	55	74	73
Lab Control Sample	JWG0804427-2	28	21	69	64	81	72

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	10-77	Sur5 = 2,4,6-Tribromophenol	30-143
Sur2 = Phenol-d6	10-51	Sur6 = Terphenyl-d14	23-165
Sur3 = Nitrobenzene-d5	32-106		
Sur4 = 2-Fluorobiphenyl	30-102		

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/18/2008
Sample Matrix:	Water	**Date Analyzed:**	11/19/2008

Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8270C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804427

	Lab Control Sample JWG0804427-2 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Phenol	15.4	50.0	31	12-54
Bis(2-chloroethyl) Ether	29.8	50.0	60	41-99
2-Chlorophenol	26.7	50.0	53	35-101
1,3-Dichlorobenzene	23.5	50.0	47	30-119
1,4-Dichlorobenzene	24.6	50.0	49	31-119
1,2-Dichlorobenzene	26.1	50.0	52	32-123
Bis(2-chloroisopropyl) Ether	28.9	50.0	58	31-94
Benzyl alcohol	25.8	50.0	52	32-110
2-Methylphenol	25.9	50.0	52	21-100
Hexachloroethane	25.6	50.0	51	19-113
N-Nitrosodi-n-propylamine	37.8	50.0	76	43-103
4-Methylphenol	51.8	75.0	69	15-93
Nitrobenzene	33.7	50.0	67	36-116
Isophorone	39.5	50.0	79	46-106
2-Nitrophenol	30.8	50.0	62	40-120
2,4-Dimethylphenol	32.3	50.0	65	38-110
bis(2-Chloroethoxy)methane	37.4	50.0	75	47-100
2,4-Dichlorophenol	36.8	50.0	74	36-117
1,2,4-Trichlorobenzene	26.8	50.0	54	50-120
Naphthalene	27.4	50.0	55	44-97
4-Chloroaniline	26.8	50.0	54	39-110
Hexachlorobutadiene	25.1	50.0	50	20-110
4-Chloro-3-methylphenol	37.9	50.0	76	36-117
2-Methylnaphthalene	28.4	50.0	57	46-110
Hexachlorocyclopentadiene	22.1	50.0	44	23-115
2,4,6-Trichlorophenol	36.4	50.0	73	41-115
2,4,5-Trichlorophenol	38.3	50.0	77	47-113
2-Chloronaphthalene	30.2	50.0	60	47-106
2-Nitroaniline	35.2	50.0	70	33-94
Acenaphthylene	32.6	50.0	65	45-99
Dimethyl Phthalate	38.5	50.0	77	32-119
2,6-Dinitrotoluene	35.4	50.0	71	55-121
Acenaphthene	31.7	50.0	63	42-106
3-Nitroaniline	27.0	50.0	54	25-91
2,4-Dinitrophenol	34.5	50.0	69	27-128
Dibenzofuran	31.8	50.0	64	49-103

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551
Date Extracted: 11/18/2008
Date Analyzed: 11/19/2008

Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS (Appendix II)

Extraction Method: EPA 3510C
Analysis Method: 8270C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804427

Analyte Name	Lab Control Sample JWG0804427-2 Lab Control Spike Result	Expected	%Rec		%Rec Limits
4-Nitrophenol	12.6	50.0	25		10-86
2,4-Dinitrotoluene	36.6	50.0	73		54-121
2,3,4,6-Tetrachlorophenol	45.5	50.0	91		50-150
Fluorene	33.2	50.0	66		54-97
4-Chlorophenyl Phenyl Ether	39.2	50.0	78		53-108
Diethyl Phthalate	36.0	50.0	72		56-108
4-Nitroaniline	32.9	50.0	66		44-102
2-Methyl-4,6-dinitrophenol	41.5	50.0	83		46-117
N-Nitrosodiphenylamine	16.8	50.0	34		30-122
4-Bromophenyl Phenyl Ether	43.1	50.0	86		63-123
Hexachlorobenzene	36.6	50.0	73		55-110
Pentachlorophenol	34.5	50.0	69		44-120
Phenanthrene	32.7	50.0	65		52-110
Anthracene	32.7	50.0	65		52-104
Di-n-butyl Phthalate	34.4	50.0	69		57-118
Fluoranthene	34.8	50.0	70		52-110
Pyrene	36.9	50.0	74		53-110
Butyl Benzyl Phthalate	34.5	50.0	69		47-117
3,3'-Dichlorobenzidine	30.7	50.0	61		32-112
Benz(a)anthracene	34.1	50.0	68		49-114
Chrysene	33.8	50.0	68		50-113
Bis(2-ethylhexyl) Phthalate	36.1	50.0	72		48-127
Di-n-octyl Phthalate	34.6	50.0	69		35-139
Benzo(b)fluoranthene	26.9	50.0	54	*	56-110
Benzo(k)fluoranthene	38.8	50.0	78		48-110
Benzo(a)pyrene	29.1	50.0	58		56-110
Indeno(1,2,3-cd)pyrene	40.1	50.0	80		54-115
Dibenz(a,h)anthracene	38.9	50.0	78		51-125
Benzo(g,h,i)perylene	43.3	50.0	87		53-116

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551

Surrogate Recovery Summary
Organochlorine Pesticides by GC-ECD

Extraction Method: EPA 3510C
Analysis Method: 8081A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1		Sur2	
L-1	J0805551-001	9	#	3	#
L-4	J0805551-002	21	#	4	#
L-5	J0805551-003	61		53	
Method Blank	JWG0804383-2	46		50	
Lab Control Sample	JWG0804383-1	60		83	

Surrogate Recovery Control Limits (%)

Sur1 =	Tetrachloro-m-xylene	32-92
Sur2 =	Decachlorobiphenyl	13-104

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/16/2008
Sample Matrix:	Water	**Date Analyzed:**	11/21/2008

Lab Control Spike Summary
Organochlorine Pesticides by GC-ECD

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8081A	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804383

	Lab Control Sample JWG0804383-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
alpha-BHC	0.278	0.400	70	56-104
gamma-BHC (Lindane)	0.272	0.400	68	57-101
beta-BHC	0.270	0.400	68	55-97
delta-BHC	0.221	0.400	55	31-105
Heptachlor	0.287	0.400	72	52-100
Aldrin	0.300	0.400	75	45-108
Heptachlor Epoxide	0.258	0.400	65	59-103
gamma-Chlordane	0.307	0.400	77	53-107
alpha-Chlordane	0.311	0.400	78	54-104
4,4'-DDE	0.332	0.400	83	58-114
Endosulfan I	0.314	0.400	79	61-104
Dieldrin	0.335	0.400	84	57-111
Endrin	0.287	0.400	72	57-117
4,4'-DDD	0.353	0.400	88	56-116
Endosulfan II	0.308	0.400	77	50-106
4,4'-DDT	0.323	0.400	81	41-115
Endrin Aldehyde	0.324	0.400	81	51-108
Methoxychlor	0.321	0.400	80	43-123
Endosulfan Sulfate	0.340	0.400	85	56-107
Endrin Ketone	0.352	0.400	88	46-101

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0805551

Surrogate Recovery Summary
Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Extraction Method: EPA 3510C
Analysis Method: 8082

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	
L-1	J0805551-001	4	#
L-4	J0805551-002	5	#
L-5	J0805551-003	53	
Method Blank	JWG0804384-4	63	
Lab Control Sample	JWG0804384-3	48	

Surrogate Recovery Control Limits (%)

Sur1 = Decachlorobiphenyl 24-120

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project:	JED SWDF/FQ1512	**Date Extracted:**	11/16/2008
Sample Matrix:	Water	**Date Analyzed:**	11/21/2008

Lab Control Spike Summary
Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8082	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0804384

	Lab Control Sample JWG0804384-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Aroclor 1016	2.07	4.00	52	39-116
Aroclor 1260	2.16	4.00	54	41-118

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project Name:	JED SWDF	**Date Collected:**	11/13/2008
Project Number:	FQ1512	**Date Received:**	11/14/2008
Matrix:	WATER	**Date Extracted:**	11/25/2005
		Date Analyzed:	11/26/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	L-1		**Units:**	ug/L
Lab Code:	J0805551-001	J0805551-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Iron	EPA 3010	6010B	50	2000	2000	5150	6830	6770	84	81	1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project Name:	JED SWDF	**Date Collected:**	11/13/2008
Project Number:	FQ1512	**Date Received:**	11/14/2008
Matrix:	WATER	**Date Extracted:**	11/25/2008
		Date Analyzed:	11/26/2008

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	L-1		**Units:**	mg/L
Lab Code:	J0805551-001	J0805551-001S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	RPD	% Rec Acceptance Limits	Result Notes
Sodium	EPA 3010	6010B	10.0	10.0	10.0	2190.0	2220.0	2220.0	NC	NC	<1	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/21/2008
		Date Analyzed:	12/05/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	LCS3-1121	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Antimony	EPA 3020A	6020	50.0	47.8	96	80 - 120	
Arsenic	EPA 3020A	6020	50.0	47.0	94	80 - 120	
Barium	EPA 3020A	6020	50.0	50.3	101	80 - 120	
Beryllium	EPA 3020A	6020	50.0	48.1	96	80 - 120	
Cadmium	EPA 3020A	6020	50.0	48.5	97	80 - 120	
Chromium	EPA 3020A	6020	50.0	49.3	99	80 - 120	
Cobalt	EPA 3020A	6020	50.0	49.4	99	80 - 120	
Copper	EPA 3020A	6020	50.0	48.5	97	80 - 120	
Iron	EPA 3010A	6010B	2000	1860	93	80 - 120	
Lead	EPA 3020A	6020	50.0	51.1	102	80 - 120	
Mercury	METHOD	7470A	5.00	5.21	104	80 - 120	
Nickel	EPA 3020A	6020	50.0	50.1	100	80 - 120	
Selenium	EPA 3020A	6020	50.0	44.4	89	80 - 120	
Silver	EPA 3020A	6020	50.0	47.4	95	80 - 120	
Thallium	EPA 3020A	6020	50.0	49.9	100	80 - 120	
Tin	EPA 3020A	6020	50.0	49.2	98	80 - 120	
Vanadium	EPA 3020A	6020	50.0	49.8	100	80 - 120	
Zinc	EPA 3020A	6020	100	92.2	92	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	J0805551
Project Name:	JED SWDF	**Date Collected:**	N/A
Project Number:	FQ1512	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	11/25/2008
		Date Analyzed:	11/26/2008

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS6-1125	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sodium	EPA 3010A	6010B	10.0	9.7	97	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : GeoSyntec Consultants
Project Name : JED SWDF
Project Number : FQ1512
Sample Matrix : WATER

Service Request : J0805551
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 11/14-12/01/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : J0805551-LCS
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Alkalinity as CaCO3, Total	mg/L (ppm)	SM2320 B	250	247	99	85-115	
Ammonia as Nitrogen	mg/L (ppm)	350.1	5.00	5.20	104	90-110	
Chloride	mg/L (ppm)	300.0	100	99.9	100	90-110	
Chloride	mg/L (ppm)	300.0	100	98.6	99	90-110	
Cyanide, Total	mg/L (ppm)	335.4	0.100	0.108	108	90-110	
Nitrate as Nitrogen	mg/L (ppm)	300.0	5.0	5.11	102	90-110	
Solids, Total Dissolved (TDS)	mg/L (ppm)	160.1	300	319	106	85-115	
Sulfide	mg/L (ppm)	376.1	10.8	10.8	100	85-115	

Report By: Palimi

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	GeoSyntec Consultants	**Service Request :**	J0805551
Project Name :	JED SWDF	**Date Collected :**	NA
Project Number :	FQ1512	**Date Received :**	NA
Sample Matrix :	WATER	**Date Extracted :**	NA
		Date Analyzed :	11/20/08

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample Duplicate
Lab Code : J0805551-LCSD
Test Notes :

Basis : NA

Analyte	Units	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sulfide	mg/L (ppm)	376.1	10.8	10.8	100	85-115	

Report By: Palimi

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec Service Request # J080555 1

Project: ED SWDF

Cooler received on 11/14/08 and opened on 11/14/08 by TDK

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	1.1 2.3 1.1		
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2 TDK

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials
L-1	HNO3	47198	1.0	SJO
L-4	HNO3	47198	1.0	
L-5	HNO3	47198	1.0	

@ 1045 on 11/12/08

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR # : J0805551 Date: 11/14/08 Initials: TD IC

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
-001	6						1	1				1	1			1					6									
-002	6						1	1				1	1			1					6									
-003	6						1	1				1	1			1					6									
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-040																														

Columbia Analytical Services™

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

www.caslab.com

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR# J080555 1

CAS Contact

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number and [redacted]

PRESERVATIVE	0	0	2	3	4.5	4	0	0	0	0
NUMBER OF CONTAINERS	8260	8011	Metals	Nitr	Sulfide	Cyanide	TSS, Cl, NO3, Alk	8270	8081	8082	8151

1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX		8260	8011	Metals	Nitr	Sulfide	Cyanide	TSS, Cl, NO3, Alk	8270	8081	8082	8151	REMARKS/ ALTERNATE DESCRIPTION
L-1		11-13-08	0800	Leachate	17	X	X	X	X	X	X	X	X	X	X	X	
L-4		11-13-08	0940	Leachate	17	X	X	X	X	X	X	X	X	X	X	X	
L-5		11-13-08	1100	Leachate	17	X	X	X	X	X	X	X	X	X	X	X	
Trip Blank				W	3	X											

SPECIAL INSTRUCTIONS/COMMENTS

Leachate effervesces when contacts acid preserved bottles. I rinsed VOA vials w/Leachate sample water to remove HCl prior to filling.

See QAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

X STANDARD

REQUESTED FAX DATE _____

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS

____ I. Results Only

X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

____ V. Speicalized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION

PO#

BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Tom D. Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom D. Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 11-13-08/1330	Date/Time: 11/14/08 940	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-06/20/08

Columbia Analytical Services
9143 Philips Highway, Suite 200
Jacksonville, FL 32256
Tel 904-739-2277
Fax 904-739-2011

Appendix A

Subcontracted Analytical Results

Environmental Conservation Laboratories, Inc.
10775 Central Port Drive
Orlando FL, 32824
Phone: 407.826.5314 FAX: 407.850.6945
www.encolabs.com

Friday, November 21, 2008

Columbia Analytical Svcs. (CO009)

Attn: Craig Myers

9143 Philips Highway, Suite 200

Jacksonville, FL 32256

RE: Laboratory Results for
Project Number: J0805551, Project Name/Desc: J0805551
ENCO Workorder: A805836

Dear Craig Myers,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Saturday, November 15, 2008.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Orlando. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

David M. Camacho

David Camacho For Ronald Wambles

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 9.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: L-1 **Lab ID:** A805836-01 **Sampled:** 11/13/08 08:00 **Received:** 11/15/08 08:00

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8151A	11/20/08	12/27/08	11/17/08	19:38	11/20/2008 23:35

Client ID: L-4 **Lab ID:** A805836-02 **Sampled:** 11/13/08 09:40 **Received:** 11/15/08 08:00

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8151A	11/20/08	12/27/08	11/17/08	19:38	11/21/2008 00:13

Client ID: L-5 **Lab ID:** A805836-03 **Sampled:** 11/13/08 11:00 **Received:** 11/15/08 08:00

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8151A	11/20/08	12/27/08	11/17/08	19:38	11/21/2008 00:50

SAMPLE DETECTION SUMMARY

No positive results detected.

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ANALYTICAL RESULTS

Description: L-1
Matrix: Ground Water
Project: J0805551

Lab Sample ID: A805836-01
Sampled: 11/13/08 08:00
Sampled By:

Received: 11/15/08 08:00
Work Order: A805836

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.080	U	ug/L	1	0.080	0.50	8K17021	EPA 8151A	11/20/08 23:35	RC	
2,4,5-TP (Silvex) [93-72-1] ^	0.087	U	ug/L	1	0.087	0.50	8K17021	EPA 8151A	11/20/08 23:35	RC	
2,4-D [94-75-7] ^	0.13	U	ug/L	1	0.13	0.50	8K17021	EPA 8151A	11/20/08 23:35	RC	
Dinoseb [88-85-7] ^	0.10	U	ug/L	1	0.10	0.50	8K17021	EPA 8151A	11/20/08 23:35	RC	
Pentachlorophenol [87-86-5] ^	0.056	U	ug/L	1	0.056	0.50	8K17021	EPA 8151A	11/20/08 23:35	RC	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*2.3*	*1*	*2.00*	*117 %*	*77-191*	*8K17021*	*EPA 8151A*	*11/20/08 23:35*	*RC*	

www.encolabs.com

Description: L-4
Matrix: Ground Water
Project: J0805551

Lab Sample ID: A805836-02
Sampled: 11/13/08 09:40
Sampled By:

Received: 11/15/08 08:00
Work Order: A805836

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.080	U	ug/L	1	0.080	0.50	8K17021	EPA 8151A	11/21/08 00:13	RC	
2,4,5-TP (Silvex) [93-72-1] ^	0.087	U	ug/L	1	0.087	0.50	8K17021	EPA 8151A	11/21/08 00:13	RC	
2,4-D [94-75-7] ^	0.13	U	ug/L	1	0.13	0.50	8K17021	EPA 8151A	11/21/08 00:13	RC	
Dinoseb [88-85-7] ^	0.10	U	ug/L	1	0.10	0.50	8K17021	EPA 8151A	11/21/08 00:13	RC	
Pentachlorophenol [87-86-5] ^	0.056	U	ug/L	1	0.056	0.50	8K17021	EPA 8151A	11/21/08 00:13	RC	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*0.58*	*1*	*2.00*	*29 %*	*77-191*	*8K17021*	*EPA 8151A*	*11/21/08 00:13*	*RC*	*Q5-05*

www.encolabs.com

Description: L-5
Matrix: Ground Water
Project: J0805551

Lab Sample ID: A805836-03
Sampled: 11/13/08 11:00
Sampled By:

Received: 11/15/08 08:00
Work Order: A805836

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.080	U	ug/L	1	0.080	0.50	8K17021	EPA 8151A	11/21/08 00:50	RC	
2,4,5-TP (Silvex) [93-72-1] ^	0.087	U	ug/L	1	0.087	0.50	8K17021	EPA 8151A	11/21/08 00:50	RC	
2,4-D [94-75-7] ^	0.13	U	ug/L	1	0.13	0.50	8K17021	EPA 8151A	11/21/08 00:50	RC	
Dinoseb [88-85-7] ^	0.10	U	ug/L	1	0.10	0.50	8K17021	EPA 8151A	11/21/08 00:50	RC	
Pentachlorophenol [87-86-5] ^	0.056	U	ug/L	1	0.056	0.50	8K17021	EPA 8151A	11/21/08 00:50	RC	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*0.83*	*1*	*2.00*	*42 %*	*77-191*	*8K17021*	*EPA 8151A*	*11/21/08 00:50*	*RC*	*QS-05*

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

Batch 8K17021 - EPA 3510C

Blank (8K17021-BLK1) Prepared: 11/17/2008 19:38 Analyzed: 11/20/2008 12:59

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	0.13	U	0.50	ug/L							
Pentachlorophenol	0.056	U	0.50	ug/L							
2,4,5-TP (Silvex)	0.087	U	0.50	ug/L							
2,4,5-T [2C]	0.080	U	0.50	ug/L							
Dinoseb [2C]	0.10	U	0.50	ug/L							
Surrogate: 2,4-DCAA	*2.0*			*ug/L*	*2.00*		*102*	*77-191*			

LCS (8K17021-BS1) Prepared: 11/17/2008 19:38 Analyzed: 11/20/2008 13:37

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	1.8		0.50	ug/L	2.00		88	85-140			
2,4,5-TP (Silvex)	1.9		0.50	ug/L	2.00		96	74-177			
Surrogate: 2,4-DCAA	*2.1*			*ug/L*	*2.00*		*104*	*77-191*			

Matrix Spike (8K17021-MS1) Prepared: 11/17/2008 19:38 Analyzed: 11/20/2008 14:14

Source: A805838-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	1.8		0.50	ug/L	2.00	0.13 U	92	85-140			
2,4,5-TP (Silvex)	2.0		0.50	ug/L	2.00	0.087 U	99	74-177			
Surrogate: 2,4-DCAA	*2.0*			*ug/L*	*2.00*		*98*	*77-191*			

FLAGS/NOTES AND DEFINITIONS

PQL	PQL: Practical Quantitation Limit.
B	Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
I	The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
J	Estimated value. The associated sample note or project narrative indicate the causative reason.
K	Off-scale low; Actual value is known to be less than the value given.
L	Off-scale high; Actual value is known to be greater than value given.
M	Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample exceeded the accepted holding time.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.
QS-05	Surrogate recovery biased low and outside control limits due to suspected matrix effects, as evidenced by sample behavior during sample preparation (emulsion formation, excessive foaming).

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Columbia Analytical Services, Inc. Chain of Custody

9143 Phillips Highway • Jacksonville, FL 32256 • 904-739-2277 • FAX 904-739-2011

CAS Contact: Craig Myers

Project Number: J0805551
Project Manager: Craig Myers

Lab Code	Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Lab ID	HFRB 8151A
J0805551-001	L-1	2	Water	11/13/08	0800	~~11-AB~~ ENCO	✓
J0805551-002	L-4	2	Water	11/13/08	0930	~~11-AB~~	✓
J0805551-003	L-5	2	Water	11/13/08	1100	~~11-AB~~	✓

Test Comments

HFRB - 8151A J0805551-001,2,3 Report Appendix III for Send to ESCO Inc.

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
PLEASE SEND RESULTS TO MANDY SULLIVAN	RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 STANDARD Requested FAX Date Requested Report Date ~~11/20/08~~ 12/1/08	Results Only ✓ II Results + QC Summaries III Results + QC and Calibration Summaries IV Data Validation Report with Raw Data PQL/MDL/I X EDD	PO# J0805551 Bill to

Relinquished By: [signature] 11/14/8 Received By: [signature] 11.14.8 1410 Airbill Number: A8058366

GM 11.14.8 1410 C 3.7, 2°

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9143 Philips Highway, Suite 200 Jacksonville, FL 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

December 19, 2008 Service Request No: J0806110

Kirk Wills
GeoSyntec Consultants
14055 Riveredge Drive
Suite 300
Tampa, FL 33637

Laboratory Results for: JED SWDF/FQ1512

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on December 16, 2008. For your reference, these analyses have been assigned our service request number **J0806110**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at CMyers@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers
Project Manager

Laboratory Manager: Greg Jordan
Quality Assurance Officer: Kathy Brungard

CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/09. Other state accreditations include: Georgia, #958 valid through 6/30/09; Louisiana, #02086 valid through 6/30/09; Texas, #T104704197-06-TX valid through 5/31/09; North Carolina, #527 valid through 12/31/08; South Carolina, #96021001 valid through 6/30/09.

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	GeoSyntec Consultants	**Service Request No.:**	J0806110
Project:	JED SWDF	**Date Received:**	12/16/08
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

One water sample was received for analysis at Columbia Analytical Services on 12/16/08. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

Lab Control Sample Exceptions

The spike recovery of 1,2-Dibromo-3-chloropropane (DBCP) for Laboratory Control Sample (LCS) JWG0804957-3 was outside the upper control criterion. The analyte in question was not detected in the associated field sample. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Batch QC Notes and Discussion

Quality control samples for MS/DMS were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Approved by _____ **Date** 12/19/08

Florida DEP Data Qualifiers

B Results based upon colony counts outside the acceptable range.

D Measurement was made in the field.

H Value based on field kit determination; results may not be accurate.

i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
2. No known quality control criteria exists for the component.
3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).

K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).

L Off scale high. The analyte is above the upper limit of the linear calibration range.

M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.

N Presumptive evidence of the analyte. Confirmation was not performed.

Q Sample held beyond the accepted holding time.

T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.

U Indicates that the compound was analyzed for but not detected.

V Indicates that the analyte was detected in both the sample and the associated method blank.

Y The laboratory analysis was from an improperly preserved sample.

Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512

Service Request: J0806110

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0806110-001	MW-10A	12/15/08	11:10

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0806110
Date Collected: 12/15/2008
Date Received: 12/16/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10A
Lab Code: J0806110-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	12/17/08	12/17/08	JWG0804957	
Vinyl Chloride	ND	U	1.0	0.25	1	12/17/08	12/17/08	JWG0804957	
Bromomethane	ND	U	1.0	0.14	1	12/17/08	12/17/08	JWG0804957	
Chloroethane	ND	U	5.0	0.19	1	12/17/08	12/17/08	JWG0804957	
Trichlorofluoromethane	ND	U	20	0.25	1	12/17/08	12/17/08	JWG0804957	
1,1-Dichloroethene	ND	U	1.0	0.16	1	12/17/08	12/17/08	JWG0804957	
Acetone	ND	U	50	2.4	1	12/17/08	12/17/08	JWG0804957	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	12/17/08	12/17/08	JWG0804957	
Carbon Disulfide	ND	U	10	0.84	1	12/17/08	12/17/08	JWG0804957	
Methylene Chloride	ND	U	5.0	0.72	1	12/17/08	12/17/08	JWG0804957	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	12/17/08	12/17/08	JWG0804957	
Acrylonitrile	ND	U	10	0.59	1	12/17/08	12/17/08	JWG0804957	
1,1-Dichloroethane	ND	U	1.0	0.56	1	12/17/08	12/17/08	JWG0804957	
Vinyl Acetate	ND	U	10	0.60	1	12/17/08	12/17/08	JWG0804957	
cis-1,2-Dichloroethene	**0.99**	I	1.0	0.12	1	12/17/08	12/17/08	JWG0804957	
2-Butanone (MEK)	ND	U	10	0.56	1	12/17/08	12/17/08	JWG0804957	
Bromochloromethane	ND	U	5.0	0.14	1	12/17/08	12/17/08	JWG0804957	
Chloroform	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	12/17/08	12/17/08	JWG0804957	
Carbon Tetrachloride	ND	U	1.0	0.18	1	12/17/08	12/17/08	JWG0804957	
Benzene	**1.3**		1.0	0.52	1	12/17/08	12/17/08	JWG0804957	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
1,2-Dichloropropane	ND	U	1.0	0.057	1	12/17/08	12/17/08	JWG0804957	
Dibromomethane	ND	U	5.0	0.12	1	12/17/08	12/17/08	JWG0804957	
Bromodichloromethane	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	12/17/08	12/17/08	JWG0804957	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	12/17/08	12/17/08	JWG0804957	
Toluene	ND	U	1.0	0.52	1	12/17/08	12/17/08	JWG0804957	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	12/17/08	12/17/08	JWG0804957	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	12/17/08	12/17/08	JWG0804957	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	12/17/08	12/17/08	JWG0804957	
2-Hexanone	ND	U	25	0.36	1	12/17/08	12/17/08	JWG0804957	
Dibromochloromethane	ND	U	1.0	0.11	1	12/17/08	12/17/08	JWG0804957	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0806110
Date Collected: 12/15/2008
Date Received: 12/16/2008

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: MW-10A
Lab Code: J0806110-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	12/17/08	12/17/08	JWG0804957	
Chlorobenzene	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
Ethylbenzene	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
m,p-Xylenes	ND	U	2.0	0.22	1	12/17/08	12/17/08	JWG0804957	
o-Xylene	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
Styrene	ND	U	1.0	0.051	1	12/17/08	12/17/08	JWG0804957	
Bromoform	ND	U	2.0	0.12	1	12/17/08	12/17/08	JWG0804957	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	12/17/08	12/17/08	JWG0804957	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	12/17/08	12/17/08	JWG0804957	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	12/17/08	12/17/08	JWG0804957	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	12/17/08	12/17/08	JWG0804957	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	12/17/08	12/17/08	JWG0804957	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	71-122	12/17/08	Acceptable
4-Bromofluorobenzene	101	75-120	12/17/08	Acceptable
Dibromofluoromethane	100	82-116	12/17/08	Acceptable
Toluene-d8	97	88-117	12/17/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0806110
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804957-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	1.0	0.17	1	12/17/08	12/17/08	JWG0804957	
Vinyl Chloride	ND	U	1.0	0.25	1	12/17/08	12/17/08	JWG0804957	
Bromomethane	ND	U	1.0	0.14	1	12/17/08	12/17/08	JWG0804957	
Chloroethane	ND	U	5.0	0.19	1	12/17/08	12/17/08	JWG0804957	
Trichlorofluoromethane	ND	U	20	0.25	1	12/17/08	12/17/08	JWG0804957	
1,1-Dichloroethene	ND	U	1.0	0.16	1	12/17/08	12/17/08	JWG0804957	
Acetone	ND	U	50	2.4	1	12/17/08	12/17/08	JWG0804957	
Iodomethane (Methyl Iodide)	ND	U	5.0	2.5	1	12/17/08	12/17/08	JWG0804957	
Carbon Disulfide	ND	U	10	0.84	1	12/17/08	12/17/08	JWG0804957	
Methylene Chloride	ND	U	5.0	0.72	1	12/17/08	12/17/08	JWG0804957	
trans-1,2-Dichloroethene	ND	U	1.0	0.13	1	12/17/08	12/17/08	JWG0804957	
Acrylonitrile	ND	U	10	0.59	1	12/17/08	12/17/08	JWG0804957	
1,1-Dichloroethane	ND	U	1.0	0.56	1	12/17/08	12/17/08	JWG0804957	
Vinyl Acetate	ND	U	10	0.60	1	12/17/08	12/17/08	JWG0804957	
cis-1,2-Dichloroethene	ND	U	1.0	0.12	1	12/17/08	12/17/08	JWG0804957	
2-Butanone (MEK)	ND	U	10	0.56	1	12/17/08	12/17/08	JWG0804957	
Bromochloromethane	ND	U	5.0	0.14	1	12/17/08	12/17/08	JWG0804957	
Chloroform	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
1,1,1-Trichloroethane (TCA)	ND	U	1.0	0.21	1	12/17/08	12/17/08	JWG0804957	
Carbon Tetrachloride	ND	U	1.0	0.18	1	12/17/08	12/17/08	JWG0804957	
Benzene	ND	U	1.0	0.52	1	12/17/08	12/17/08	JWG0804957	
1,2-Dichloroethane (EDC)	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
Trichloroethene (TCE)	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
1,2-Dichloropropane	ND	U	1.0	0.057	1	12/17/08	12/17/08	JWG0804957	
Dibromomethane	ND	U	5.0	0.12	1	12/17/08	12/17/08	JWG0804957	
Bromodichloromethane	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
cis-1,3-Dichloropropene	ND	U	1.0	0.12	1	12/17/08	12/17/08	JWG0804957	
4-Methyl-2-pentanone (MIBK)	ND	U	25	0.37	1	12/17/08	12/17/08	JWG0804957	
Toluene	ND	U	1.0	0.52	1	12/17/08	12/17/08	JWG0804957	
trans-1,3-Dichloropropene	ND	U	1.0	0.12	1	12/17/08	12/17/08	JWG0804957	
1,1,2-Trichloroethane	ND	U	1.0	0.21	1	12/17/08	12/17/08	JWG0804957	
Tetrachloroethene (PCE)	ND	U	1.0	0.22	1	12/17/08	12/17/08	JWG0804957	
2-Hexanone	ND	U	25	0.36	1	12/17/08	12/17/08	JWG0804957	
Dibromochloromethane	ND	U	1.0	0.11	1	12/17/08	12/17/08	JWG0804957	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0806110
Date Collected: NA
Date Received: NA

Appendix I Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0804957-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	1.0	0.18	1	12/17/08	12/17/08	JWG0804957	
Chlorobenzene	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
1,1,1,2-Tetrachloroethane	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
Ethylbenzene	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
m,p-Xylenes	ND	U	2.0	0.22	1	12/17/08	12/17/08	JWG0804957	
o-Xylene	ND	U	1.0	0.10	1	12/17/08	12/17/08	JWG0804957	
Styrene	ND	U	1.0	0.051	1	12/17/08	12/17/08	JWG0804957	
Bromoform	ND	U	2.0	0.12	1	12/17/08	12/17/08	JWG0804957	
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.15	1	12/17/08	12/17/08	JWG0804957	
1,2,3-Trichloropropane	ND	U	2.0	0.16	1	12/17/08	12/17/08	JWG0804957	
1,4-Dichlorobenzene	ND	U	1.0	0.14	1	12/17/08	12/17/08	JWG0804957	
trans-1,4-Dichloro-2-butene	ND	U	20	1.1	1	12/17/08	12/17/08	JWG0804957	
1,2-Dichlorobenzene	ND	U	1.0	0.17	1	12/17/08	12/17/08	JWG0804957	
1,2-Dibromo-3-chloropropane (DBCP	ND	UJ	5.0	0.26	1	12/17/08	12/17/08	JWG0804957	J(3)

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	102	71-122	12/17/08	Acceptable
4-Bromofluorobenzene	103	75-120	12/17/08	Acceptable
Dibromofluoromethane	96	82-116	12/17/08	Acceptable
Toluene-d8	102	88-117	12/17/08	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0806110

Surrogate Recovery Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
MW-10A	J0806110-001	97	101	100	97
Method Blank	JWG0804957-4	102	103	96	102
Lab Control Sample	JWG0804957-3	103	98	101	99

Surrogate Recovery Control Limits (%)

Sur1 =	1,2-Dichloroethane-d4	71-122
Sur2 =	4-Bromofluorobenzene	75-120
Sur3 =	Dibromofluoromethane	82-116
Sur4 =	Toluene-d8	88-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0806110
Date Extracted: 12/17/2008
Date Analyzed: 12/17/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804957

Analyte Name	Lab Control Sample JWG0804957-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Chloromethane	19.3	20.0	97	67-135
Vinyl Chloride	22.6	20.0	113	78-132
Bromomethane	23.3	20.0	117	79-130
Chloroethane	20.9	20.0	104	74-126
Trichlorofluoromethane	23.5	20.0	118	74-134
1,1-Dichloroethene	23.1	20.0	116	78-130
Acetone	125	100	125	67-133
Iodomethane (Methyl Iodide)	96.3	100	96	68-134
Carbon Disulfide	118	100	118	76-138
Methylene Chloride	22.7	20.0	113	72-124
trans-1,2-Dichloroethene	23.0	20.0	115	77-124
Acrylonitrile	119	100	119	77-127
1,1-Dichloroethane	23.0	20.0	115	80-128
Vinyl Acetate	108	100	108	61-148
cis-1,2-Dichloroethene	22.6	20.0	113	80-126
2-Butanone (MEK)	117	100	117	73-127
Bromochloromethane	23.6	20.0	118	79-129
Chloroform	22.8	20.0	114	83-124
1,1,1-Trichloroethane (TCA)	23.5	20.0	118	79-124
Carbon Tetrachloride	23.4	20.0	117	81-125
Benzene	22.9	20.0	114	79-119
1,2-Dichloroethane (EDC)	23.5	20.0	118	80-124
Trichloroethene (TCE)	22.7	20.0	113	76-124
1,2-Dichloropropane	22.2	20.0	111	79-123
Dibromomethane	22.4	20.0	112	83-123
Bromodichloromethane	23.0	20.0	115	81-123
cis-1,3-Dichloropropene	22.6	20.0	113	86-123
4-Methyl-2-pentanone (MIBK)	112	100	112	72-136
Toluene	21.8	20.0	109	86-117
trans-1,3-Dichloropropene	22.1	20.0	111	83-124
1,1,2-Trichloroethane	21.5	20.0	107	86-114
Tetrachloroethene (PCE)	21.1	20.0	106	80-121
2-Hexanone	113	100	113	71-138
Dibromochloromethane	21.7	20.0	108	82-121
1,2-Dibromoethane (EDB)	21.2	20.0	106	88-117
Chlorobenzene	21.4	20.0	107	86-113

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: GeoSyntec Consultants
Project: JED SWDF/FQ1512
Sample Matrix: Water

Service Request: J0806110
Date Extracted: 12/17/2008
Date Analyzed: 12/17/2008

Lab Control Spike Summary
Appendix I Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: JWG0804957

Analyte Name	Lab Control Sample JWG0804957-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	21.3	20.0	107	85-117
Ethylbenzene	21.8	20.0	109	90-118
m,p-Xylenes	42.6	40.0	106	86-121
o-Xylene	21.8	20.0	109	89-119
Styrene	21.3	20.0	106	89-122
Bromoform	21.7	20.0	108	68-129
1,1,2,2-Tetrachloroethane	22.6	20.0	113	83-120
1,2,3-Trichloropropane	22.6	20.0	113	83-123
1,4-Dichlorobenzene	21.8	20.0	109	83-113
trans-1,4-Dichloro-2-butene	21.8	20.0	109	53-143
1,2-Dichlorobenzene	22.2	20.0	111	84-115
1,2-Dibromo-3-chloropropane (DBCP	26.8	20.0	134 *	62-123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Geosyntec Service Request # J0806110

Project: JED SWDF

Cooler received on 12/16/08 and opened on 12/16/08 by TDK

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	No	N/A
2	Were seals intact, signed and dated?	Yes	No	N/A
3	Were custody papers properly filled out?	Yes	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	1.5		
5	Correct Temperature?	Yes	No	N/A
6	Were Ice or Ice Packs present	Yes	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	Yes	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	No	N/A
9	Did all bottle labels and tags agree with custody papers?	Yes	No	N/A
10	Were the correct bottles used for the tests indicated?	Yes	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	Yes	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	Yes	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	N/A
14	Where did the bottles originate?	CAS	Client	

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Inititials

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted: Date:

SR # : J 0806110 Date: 12/16/08 Initials: JDK

Note that pH is checked and meets the required pH criterion listed in the column heading unless otherwise noted on cooler receipt form.

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-				-	-
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Columbia Analytical Services™

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR # J0806110

CAS Contact [redacted]

Project Name: JED SWDF	Project Number: FQ1512
Project Manager: Kirk Wills	Email Address: kwills@geosyntec.com
Company/Address: Geosyntec, 14055 Riveredge Dr. Ste 300, Tampa, FL 33637	
Phone #: 813-558-0990	FAX#: 813-558-9726
Sampler's Signature: Joe Terry	Sampler's Printed Name: Joe Terry

ANALYSIS REQUESTED (Include Method Number a[redacted]

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8260														REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1														
MW-10A		12-15-08	1110	GW	3	X														

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Joe Terry	Signature: Tom D. Kissinger	Signature	Signature	Signature	Signature
Printed Name: Joe Terry	Printed Name: Tom D. Kissinger	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Geosyntec	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 12-15-08/1630	Date/Time: 12/16/08 1005	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-06/20/08