

Landfill 7 Cover Improvements at the Former Griffiss Air Force Base Rome, New York

Contractor Quality Control Plan Document Series 4 of 5



March 2002 FINAL

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Text	March 2002	15-17

Revision: FINAL March 2002

Appendix F TESTING PLAN LOG LANDFILL 7 COVER IMPROVEMENTS

Material	Test	Test Method	Frequency
Common Borrow Fill	Atterberg Limits	ASTM D-4318	1 test per 1,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Particle Size Analysis	ASTM D-422	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	USCS Classification	ASTM D-2487	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Moisture Content	ASTM D-2216	1 test per 1,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Chemical Testing for Contamination	EPA SW-846	1 test per source; a composite of 5 subsamples.
Low Permeability	Atterberg Limits	ASTM D-4318	1 test per 1,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
Soil Layer	Compaction Characteristics of Soil	ASTM D-698	1 set of tests per 5,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Density of Soil In-Place by Nuclear Methods	ASTM D-2922	9 tests per acre per lift.
	Rapid Moisture Content		9 tests per acre per lift.
	Hydraulic Conductivity Testing	ASTM D-5084	1 test per acre per lift.
	Hydraulic Conductivity Testing	ASTM D-5084	1 test per 5,000 yd ³ of borrow, minimum 2 tests per source. Additional test when material characteristics change.
	Particle Size Analysis	ASTM D-422 and ASTM-D- 1140	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Moisture Content	ASTM D-2216	1 test per 1,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Chemical Testing for Contamination	EPA SW-846	1 test per source; a composite of 5 subsamples.
Topsoil	Organic Content	AASHTO – T194	1 test per 20,000 yd ³ of borrow. Additional tests when material characteristics change.
	Gradation	ASTM D-422	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Chemical Testing for Contamination	EPA SW-846	1 test per 2,000 yd ³ of borrow, minimum 2 tests per source. Additional tests when material characteristics change.

(a) Samples will be composite samples, collected from at least 10 uniformly spaced locations in the borrow pit(s). Samples will be collected from a depth of 1-2 ft below existing grade before borrow operations begin. Contractor will composite soil from 10 locations into one sample, which will then be sent to the accepted testing laboratory for analysis. Analytical results will be reported within 20 days of sample receipt by the laboratory.

NOTE: ASTM = American Society of Testing and Materials.

USCS = Unified Soil Classification System.

EPA = U.S. Environmental Protection Agency.

4.10.1 Preparation of Subgrade (Cuts and Fills)

Consistent with the closure plan and project specifications, the landfill will require grading to achieve the grades shown on the design drawings. This work will be accomplished using the LGP bulldozers. In addition, any sloped surfaces steeper than 1 vertical to 4 horizontal shall be plowed, stepped, benched or broken up in such a manner that the fill material will bond with the existing material.

Subgrade elevations within the landfill boundary shall be in conformity with the design drawings and within the tolerances in the design specifications. All on-site material suitable for use as common fill will be utilized to the maximum extent practicable to achieve the subgrade elevations. Off-site common fill will be provided to achieve subgrade elevations as required and as approved by the COR.

Subgrade compaction will be accomplished by six passes of a sheepsfoot roller, pneumatic-tired roller or other approved method with a minimum gross weight of 20,000 pounds (10 tons). The material will be moistened as necessary to provide the moisture content that will adequately compact the subgrade. Compaction testing of the subgrade will not be performed.

4.10.2 Cover Soil Placement

In order to reduce infiltration of water, a low-permeability soil cover will be placed over the subgrade. Final cover soil layer depth shall be 18 inches. The cover soil will meet the requirements specified in Section 02300 (Earthwork) of the project specifications. The staging and placement of the cover material will be sequenced to ensure that the trucks delivering the material will not enter contaminated areas on the landfill cap. If required, a roadway/stone cover will be constructed to ensure that a rigorous decontamination of each truck will not be required. The roadway/stone cover will be left in place and incorporated into the final landfill cover. The approved cover soil material will be placed in successive horizontal uniformly spread layers of loose material not more than 8 inches thick. Each layer will be compacted using a sheepsfoot roller, pneumatic-tired roller or other approved equipment well suited to the soil being compacted. Material will be moistened or aerated as necessary to provide the moisture content that will readily facilitate obtaining the specified compaction with the equipment used. All cover soil will be placed and compacted such that field measured moisture content and density are within the "Acceptable Zone" that applies to the material being placed. All density and permeability testing of the compacted material will be performed in accordance with the Contractor Quality Control Plan.

4.10.3 Import and Placement of Topsoil

In order to achieve the final grades and to meet the specified depth of 6 inches, topsoil from an approved source will be imported and placed. Prior to topsoil delivery, Conti will notify the COR of the source(s) from which the topsoil will be furnished. A certificate of compliance certifying that the topsoil meets the specified requirements will be submitted. Adjustment of pH, if necessary, will be done prior to seeding by the addition of pH adjusters. All topsoil will be placed, spread and graded using bulldozers or other acceptable equipment.

Topsoil shall meet the requirements of the Design Specifications included in Appendix B of the Final Closure Plan. The topsoil will be uniformly spread and graded to meet the slopes shown on the



Drawings. Topsoil will not be placed when the subgrade is frozen, excessively wet, extremely dry, or in conditions otherwise detrimental to seeding, planting or proper grading.

4.11 Relocation of Existing Transformer

There is an existing active transformer located on the landfill approximately 50 feet northwest of the gravel access road that leads from Perimeter Road. The local utility company will be contacted and will identify and mark all underground lines. The transformer will be relocated to the north of the landfill and the existing underground lines will be abandoned in place. All lockout/tagout procedures will be followed as described in the SSHP. New electrical lines will be installed underground along the access road that traverses the landfill. All electrical work will be performed by a licensed electrician.

4.12 Modification of Existing Swales

During the installation of the final cover, the existing drainage swales along the gravel roadway and along Perimeter Road will be modified per Design Drawing C-03, Closure Cap Details. The drainage swales along the access road will be a minimum depth of 6 inches and the swales along Perimeter Road will be a minimum depth of 12 inches. These swales will be lined with biodegradable erosion control matting until vegetative growth can be established.

4.13 Culvert Removal and Replacement

The existing 12-inch CMP culvert located at the southwestern most section of the landfill bordering the runway will be removed. The area will be regraded and a new culvert pipe will be installed. The new pipe will be 12-inch, 16 gauge, CMP. An installation detail of the culvert is shown on Design Drawing C-03.

4.14 Fertilizing, Seeding and Mulching

The total area to be seeded in Landfill 7 and the surrounding disturbed areas will be approximately 15 acres. All fertilizing, seeding and mulching will be in accordance with Section 02921 of the project specifications.

The seed mix to be utilized will be that as recommended by the US Department of Interior for landfill covers consisting of native grasses and annual ryegrass as a nurse crop. The seed mix will be applied at the rate of 95 pounds per acre of Pure Live Seed (PLS) and will consist of the following:

Species	Pounds/acre PLS	
 Big Blue-stem 	6	
• Little Blue-stem	9	
 Switch Grass 	3 .	
 Indian Grass 	9	
 Canada Wild Rye 	15	
Partridge Pea	3	
 Annual ryegrass 	<u>50</u>	
	95 pounds/acre PLS	



4.15 Off-Site Disposal

The following is a list of the major items generated during the project that will be disposed off-site:

- Monitoring well riser pipe, screen, cement and miscellaneous debris,
- Asphalt from the area of the observation point overlooking the main runway,
- General garbage from the field office.
- PPE.
- Decontamination Liquids.
- Erosion and sediment control devices.

All debris (i.e. trees, wood chips, roots and brush) generated during clearing activities will be transported to the clearing/debris landfill located on the former base adjacent to Landfill 1. Figure 4 shows the location of this landfill. The decontamination liquids will be sampled as described in the Sampling and Analysis Plan (SAP) and properly disposed of as determined by analyses.

4.16 As-Built Survey & Installation of Permanent Benchmarks

Upon completion of fieldwork, an As-Built Topographic Map will be generated and submitted. The map will include the final topography of the landfill including the drainage swales and new culvert, all vegetation, gates and fence lines on the site and any areas within adjacent properties that were disturbed by construction activities related to Conti's work. In addition, the surveyor will install permanent elevation benchmarks at locations along the perimeter of the landfill cap. This work will be completed after all earthwork has been finished. The benchmarks will consist of a 3- to 4-inch diameter convex plate that is embedded in an 8-inch diameter by 48-inch long piece of concrete. Each plate will have the elevation stamped on it along with the benchmark reference number. The surveyor will provide a map showing the locations, coordinates and reference numbers for all permanent benchmarks.

4.17 Demobilization

Upon completion of all closure activities, Conti will demobilize from the site. The temporary utility lines will be removed and the office and storage trailers transported off site. All decontamination liquids and waste materials will be fully characterized and disposed off-site as appropriate.

LIST OF REVISIONS

Section	Date	Replacement Pages
LAN	NDFILL 2/3	
PROJECT WORK PLAN		
Text	March 2002	11-14
CONTRACTOR QUALITY CON	TROL PLAN	
Appendix F – Testing Plan Log	March 2002	Testing Plan Table

Revision: FINAL March 2002

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	USCS Classification	ASTM D-2487	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
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	Density of Soil In-Place by Nuclear Methods	ASTM D-2922	9 tests per acre per lift.
	Rapid Moisture Content	ASTM D-3017	9 tests per acre per lift.
	Hydraulic Conductivity Testing	ASTM D-5084	1 test per acre per lift.
	Hydraulic Conductivity Testing	ASTM D-5084	1 test per 5,000 yd³ of boπow, minimum 2 tests per source. Additional test when material characteristics change.
	Particle Size Analysis	ASTM D-422 and ASTM-D- 1140	1 test per 2,500 yd³ of boπow, minimum of 2 tests per source. Additional tests when material characteristics change.
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EPA = U.S. Environmental Protection Agency.



government-controlled land (see Figure 4 of this plan). Special care will be taken to ensure that no debris/landfill material will be removed during clearing operations and subsequently transported to the Clearing/Debris landfill.

4.6.1 Wetlands Protection

The wetlands in the areas surrounding Landfill 2/3 have been delineated by others during the Remedial Investigation (RI) Phase of the project and most recently by Ecology & Environment in their Technical Memorandum # 3 dated November 30, 2001. The boundaries are indicated on Design Drawing C-01, Existing Conditions/ Removal Plan. As indicated, wetlands exist in the immediate work area along the southwestern section of the landfill. Wetland disturbances will be kept to a minimum and only as necessary to install the cap. During remedial activities planned in the area surrounding sample location LF23SD-7, additional protection measures such as mud mats will be utilized where needed when moving heavy equipment and trucks in and out of the wetlands. Conti anticipates that the estimated area of wetlands that will be disturbed will be between 12,500 and 22,500 square feet (approximately 0.3 to 0.5 acres). As part of the environmental protection plan, silt fence and hay bales will be installed along the boundary of the wetlands to prevent off-site migration of sediments. In addition, high visibility fence will be installed along the border to prevent any construction equipment from entering the wetlands. Any impacts to the wetlands will be addressed in the Final Long Term Monitoring Plan that is presented in Appendix C of the Closure Plan.

4.7 Decommissioning of Monitoring Wells

Conti will decommission four existing monitoring wells that are within the landfill boundaries, as shown on Design Drawing C-01. All work will be performed by a licensed driller and in accordance with the NYSDEC Groundwater Monitoring Well Decommissioning procedures dated 1998 as well as 6 NYCRR Part 360-2.11. For a detailed description of this activity refer to Section 7.9 of the Closure Plan.

All materials will be disposed of at an approved facility. A monitoring well decommissioning report will be completed by the driller and submitted to the AFBCA/DA-Griffiss for final submittal to the NYSDEC.

4.8 Waste Consolidation

Consolidation of landfill waste material/impacted soils will occur in an area to the northeast of the landfill where previous sampling identified elevated levels of petroleum hydrocarbons. A 50-foot by 50-foot area centered on sampling location LF2SD-7 will be excavated to a depth of one foot. The excavated soil will be taken to Landfill 2/3 for placement/spreading. Post excavation sampling will be performed in accordance with the SAP to demonstrate attainment of cleanup levels. The cleanup goal for Total Recoverable Hydrocarbons (TRPH) in this area is 200 mg/kg. Impacted soil remediation activities will proceed in accordance with 6 NYCRR Part 360-2.18(e) and (f) regulations for waste consolidation.

As consolidation/impacted soil removal activities occur, onsite personnel will visually screen the area to determine the types of material being excavated, and to attempt to identify when native material or



"non-impacted" soil (i.e., subbase soil) is encountered. In addition, visual screening will be used to identify intervals of soil staining or other evidence of potentially hazardous materials.

Visual screening will be performed to determine the following:

- The depth of excavation necessary to remove trash and debris. An additional amount of underlying subbase material (0.5 ft) will be excavated below the landfill material to ensure that no trash or debris remains.
- Identify potentially contaminated soil or potentially hazardous material. Contaminated soil may include stains and paint or powder residues. Potentially hazardous material may include unidentified containers (empty or otherwise) or potentially contaminated soil.
- If potentially contaminated soil is identified, the soil will be screened for organic vapors using a photoionization detector in the area being excavated and in the breathing zone. The excavated area will be screened with a frequency of at least once every 6 yd³ of material disturbed, or if potentially hazardous material is encountered. Contingency plans are provided in the Site Safety and Health Plan.
- If a potentially hazardous material is identified by visual screening, the area will be scanned for organic vapors using a photoionization detector. Soil with readings above 10 ppm will be excavated, and a composite sample for headspace analysis will be collected. The composite headspace sample will consist of three grab samples from each 30 yd³ disturbed. If photoionization detector readings for soil or headspace sample results are greater than 10 ppm, or the soil contains obvious visual contamination (liquids, staining, or powder), these disturbed soils will be separated for analytical testing. Refer to the Sampling and Analysis Plan (EA 2002) for sampling protocols. Upon receipt of analytical data of suspected impacted material, AFBCA will contact NYSDEC and EPA to discuss the appropriate disposition of the material.

If vectors are encountered during landfill consolidation then actions will be taken to prevent vectors from endangering site workers or nearby areas. These actions may include use of a professional exterminator if required to control vector populations. Particular attention will be paid to vectors such as rodents, deer ticks, mosquitoes, poisonous plants, or any other creature that could induce illness when bitten or touched. To reduce the likelihood of vectors being attracted to waste material during landfill consolidation, potential vector attracting material, if encountered, will be covered each night with at least 6 inches of soil to mitigate vector attraction.

In accordance with 6 NYCRR Part 360-2.18(e), post-excavation sampling will be performed in reclaimed areas in accordance with the Sampling and Analysis Plan (SAP). Sample frequency will be on a 50-foot by 50-foot grid. The samples will be analyzed for metals, polychlorinated biphenyls, and semivolatile and volatile organic compounds in accordance with 6 NYCRR Part 360-2.11(d)(6).

Although not anticipated for this project, items such as metal or plastic drums, 55-gal drums, or liquid-filled containers may be encountered during landfill consolidation. If encountered, these containers could pose a threat to workers and/or the environment. To limit potential exposure hazards, the following procedures will be followed if containers are encountered:

Care will be taken to prevent damaging containers that are uncovered during excavation. If possible, containers that are observed in the landfill mass will be removed in a manner that will maintain their integrity.



Containers that are removed will be placed on plastic sheeting or in secondary containment (drum overpacks or containment skids). If leaks or stained soils are suspected or observed, worker's breathing zone and downwind areas will be monitored with a photoionization detector, flame ionization detector, or combustible gas indicator.

Although not anticipated, the potential exists if landfill consolidation is required for asbestos-containing material (ACM) to be present in an area subject to landfill consolidation. Asbestos-containing material, if encountered, may pose a threat to site workers if it is in a friable or airborne form. Asbestos-containing material is more likely to become airborne if dry or uncovered. The procedures outlined in the SSHP will be followed to limit potential exposure hazards if ACM is encountered.

Although tires are not anticipated to pose a safety or health threat to site workers, if tires are found during landfill consolidation then the tires will be segregated from other landfill material. Tires will be stockpiled and removed from the site for disposal at a transfer station, permitted landfill, or recycling facility.

4.9 Landfill Cover Construction

The new landfill cover will consist of common fill for areas that require fills (as discussed in the following section), imported low-permeability soil and imported topsoil. All imported material will be obtained from off Government property.

During construction of the cover improvements surveying will be performed as required to support performance of volume calculations and verifications.

4.9.1 Preparation of Subgrade (Cuts and Fills)

Some minor or nominal grading will be required to prepare the subgrade. This will occur mostly along the south and northwest areas of the landfill where slopes exceed 30 percent, and also in the flat areas in the northern portion where slopes are less than 2 percent. This work will be accomplished using LGP bulldozers.

All on-site material suitable for use as common fill will be utilized to the maximum extent practicable to achieve the subgrade elevations. Off-site common fill will be provided to achieve subgrade elevations as required and as approved by the COR.

Subgrade compaction will be accomplished by six passes of a sheepsfoot roller, pneumatic-tired roller or other approved method with a minimum gross weight of 20,000 pounds (10 tons). The material will be moistened as necessary to provide the moisture content that will adequately compact the subgrade. Compaction testing of the subgrade will not be performed.



4.9.2 Cover Soil Placement

In order to reduce infiltration of water, a low-permeability soil cover will be placed over the subgrade. Final cover soil (borrow material) layer depth shall be 18 inches. All borrow material will come from an off-site source. The cover soil will meet the requirements specified in Section 02300 (Earthwork) of the project specifications dated December 2001 (prepared by EA Engineering). The staging and placement of the cover material will be sequenced to ensure that the trucks delivering the material will not enter contaminated areas on the landfill cap. If required, a roadway/stone cover will be constructed to ensure that a rigorous decontamination of each truck will not be required. The roadway/stone cover will be left in place and incorporated into the final landfill cover. The approved cover soil material will be placed in successive horizontal uniformly spread layers of loose material not more than 8 inches thick. Each layer will be compacted using a sheepsfoot roller, pneumatic-tired roller or other approved equipment well suited to the soil being compacted. Material will be moistened or aerated as necessary to provide the moisture content that will readily facilitate obtaining the specified compaction with the equipment used. All cover soil will be placed and compacted such that field measured moisture content and density are within the "Acceptable Zone" that applies to the material being All density and permeability testing of the compacted material will be performed in accordance with the CQCP.

4.9.3 Import and Placement of Topsoil

In order to achieve the final grades and to meet the specified depth of 6 inches, topsoil from an approved source will be imported and placed. Prior to topsoil delivery, Conti will notify the COR of the source(s) from which the topsoil will be furnished. A certificate of compliance certifying that the topsoil meets the specified requirements will be submitted. Adjustment of pH, if necessary, will be done prior to seeding by the addition of pH adjusters. All topsoil will be placed, spread and graded using bulldozers or other acceptable equipment.

Topsoil shall meet the requirements of the Design Specifications included in Appendix B of the Final Closure Plan. The topsoil will be uniformly spread and graded to meet the slopes shown on the Drawings. Topsoil will not be placed when the subgrade is frozen, excessively wet, extremely dry, or in conditions otherwise detrimental to seeding, planting or proper grading.

4.10 Fertilizing, Seeding and Mulching

The total area to be seeded in Landfill 2/3 and the surrounding disturbed areas will be approximately 15 acres. All fertilizing, seeding and mulching will be in accordance with Section 02921 of the project specifications.

The seed mix to be utilized will be that as recommended by the US Department of the Interior for landfill covers consisting of native grasses and annual ryegrass as a nurse crop. The seed mix will be applied at the rate of 95 pounds per acre of Pure Live Seed (PLS) and will consist of the following:

COMMENTS AND RESPONSES Landfill 7 EPA – Doug Pocze Comments

Comments and Responses to the Contractor Quality Control Plan

Item	Sec.	Comment	Response
Itom	Sec.	Comment	
I	Page 6, Section 4.2	Text in the third paragraph indicates that an example of the stamp that will appear on submittals is provided; however, no sample stamp appears on the page. Revise text to include the stamp.	An example of the stamp will be included. This stamp is an internal Quality Control Stamp and is not a Professional Engineer's stamp.
2	Appendix B	This table identified the Definable Features of Work pertinent to this project. However, it appears that the environmental sampling of the borrow sources and areas exposed by the excavation of existing parts of the landfill as part of the reclamation activities has been omitted from this table. The environmental sampling should be considered a Definable Feature of Work, and should be included in this table. Additionally, the purpose and use of the table is unclear. The table does not provide dates, nor does it contain a key to define the hatch marks that appear in the Submittal Status column. How will this table be used as part of the daily QC report? Revise the table to include the environmental sampling tasks and provide additional text discussing the purpose of this table.	Environmental sampling activities of the borrow sources required for Landfill 2/3 will be added to the DFOW table presented in Appendix B. There are no reclamation activities anticipated; however sampling activities for this purpose will be added to the DFOW table as an option. The table in Appendix B is discussed in Section 4.1 of the CQCP. The purpose of the table is to serve as a list of DFOWs for the project to support planning and execution of QC activities for each DFOW. The dates will be inserted in the table as site work is scheduled and as work is completed. The hatch marks are provided to indicate that no entry on the table is required for that field.

Landfill 7 Cover Improvements Former Griffiss Air Force Base Rome, New York

CONTRACTOR QUALITY CONTROL PLAN

Conti Environmental, Inc. March 2002 FINAL





DOCUMENT SERIES OVERVIEW

The U.S. Army Corps of Engineers (USACE)—Kansas City District, issued Task Order No. 0001 under Contract No. DACA41-01-D-0004 to Conti Environmental, Inc. Under this Task Order, Conti Environmental, Inc. and its 'subcontractor, EA Engineering, P.C. and its affiliate EA Engineering, Science, and Technology have been tasked to prepare documents to support landfill closure activities at the former Griffiss Air Force Base, Rome, New York.

A series of documents has been developed in support of each of the five landfills to be closed. The series includes one primary document, and four supporting documents and associated appendices. The following is a list of the documents in the series developed in support of landfill closure, and an abbreviated description of the document. Bold highlighting indicates which document in the series the reader is currently reviewing.

The Closure Plan is the primary document and is the first document in a series of five documents. The Closure Plan has been developed in accordance with New York Codes, Rules and Regulations Part 360. The Closure Plan provides project history and background information for the site, the regulatory status, the proposed design elements with supporting calculations, specifications and design drawings.

The Project Work Plan is the second document in the series. The Project Work Plan has been developed to outline the scope of work to be implemented and the general methodologies used to execute the scope of work. The plan presents Conti's work approach and sequence of activities for accomplishing the construction of landfill cover improvements. The Project Work Plan also includes, as appendices, the Environmental Protection and Soil Erosion Control Plan and the Traffic Control Plan. The Environmental Protection and Soil Erosion Control Plan outlines the procedures to be implemented to minimize impacts on the surrounding environment during construction. The Traffic Control Plan details the policies and procedures for proper control of vehicles during construction to protect workers and increase efficiency.

The Site Safety and Health Plan is the third document in the series. The Site Safety and Health Plan has been developed to outline the health and safety requirements and guidelines to be followed during construction related activities associated with the landfill closures.

The Contractor Quality Control Plan is the fourth document in the series. The Contractor Quality Control Plan has been developed to outline the policies and procedures to be followed to ensure that proper quality control measures are implemented to provide usable defendable data, ensure compliance with contract drawings and specifications, and to meet contractual requirements with USACE.

The Sampling and Analysis Plan is the fifth document in the series. The Sampling and Analysis Plan has been developed to outline the sampling and analysis procedures to be conducted at each landfill during closure activities.



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Abbreviations and Acronyms

BS	Bachelor of Science
CO	contracting officer
COR	contracting officer representative
CQC	contractor quality control
CQCSM	contractor quality control systems manager
CQCO	chemical/radiological quality control officer
	definable features of work
DQO	data quality objective
DSE	demolition/structural engineer
	engineering
	engineering regulation
NAS	
NICA	non-compliance identification/corrective action
POC	point of contact
	pre-place remedial action contract
	quality assurance
QC	quality control
RMS	government resident management system
SAP	
SSHO	site safety and health officer
	site safety and health plan
ГРL	
USACE	



1.0 Introduction

Conti Environmental, Inc. (Conti) has prepared this Contractor Quality Control Plan under US Army Corps of Engineers, Kansas City District (CENWK) contract #DACA41-01-D-0004 for the New York District of Army Corps of Engineers (NYD), the Former Griffiss Air Force Base and the Air Force Base Conversion Agency (AFBCA).

2.0 Purpose, Scope and Applicability

The purpose of this manual is to document the Contractor Quality Control (CQC) Plan that Conti Environmental, Inc. (Conti) will implement for accomplishing construction of landfill cover improvements at Landfill 7 at the former Griffiss Air Force Base in Rome, Oneida County, New York. The landfill cover improvements are to be implemented in accordance with the requirements contained in the Landfill 7 Closure Plan prepared to meet the requirements of 6 NYCRR Part 360. The CQC Plan is designed to ensure that all aspects of the project are performed in accordance with the plans and specifications provided by the USACE. Conti recognizes that no activities involving field demolition/construction will be permitted to begin until after acceptance of the CQC Plan by the USACE.

The scope of this plan includes all CQC aspects of the project. The specific aspects of chemical data quality control are presented in detail in the Sampling and Analysis Plan (SAP), a separate plan prepared for this project. However, as will be discussed later, chemical data quality control will be administered as part of the overall CQC Plan for the project.

This document is applicable to all activities and services performed and/or provided by Conti as the prime contractor and all subcontractors, suppliers, fabricators and purchasing agents associated with any and all work under Conti's control.

3.0 Organization, Authority and Responsibility

3.1 Organizational Structure

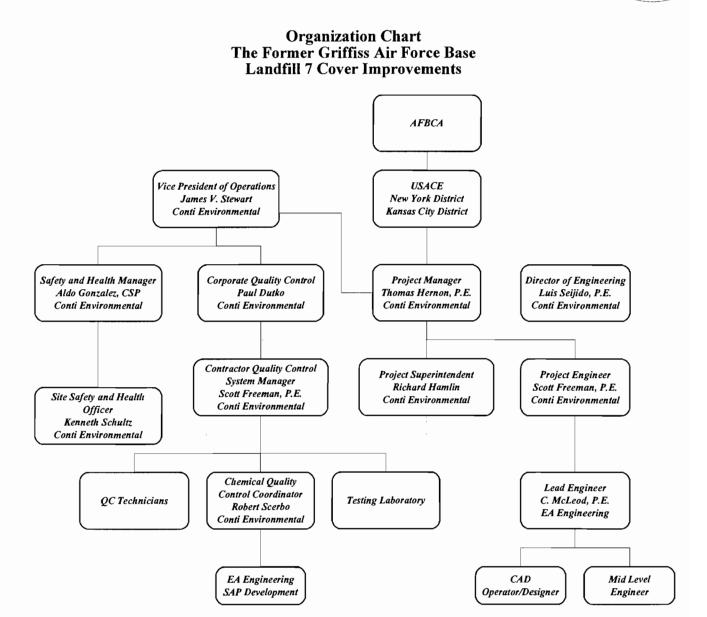
The QC organizational structure for this project is shown in the chart presented below and includes the Project Manager, Project Superintendent, Contractor Quality Control System Manager (CQCSM), Chemical Quality Control Coordinator(CQCC) and additional internal and/or subcontracted QC personnel assigned to the project.

The Project Manager, Project Superintendent and CQCSM have been assigned to the project by Mr. Jim Stewart, Vice-President of Operations of Conti. Mr. Stewart has reviewed the qualifications for each position as described in the project specifications and verified that the personnel assigned satisfy all such requirements.

Mr. Thomas Hernon, PE has been assigned as Project Manager for this contract. Mr. Hernon is responsible for the execution of the project in accordance with the requirements contained in the plans and specifications and reports directly to Mr. Stewart, who in his role as Senior Corporate Officer is ultimately responsible to the USACE for the quality of the project. Mr. Hernon also serves as the Point of Contact (POC) for the USACE Contract Officer Representative (COR) and represents Conti in all matters related to the project.

Mr. Richard Hamlin has been assigned to serve as Project Superintendent for the project and reports to Mr. Hernon. Mr. Hamlin is responsible for ensuring that all field activities performed by Conti and/or subcontractors under Conti's control are conducted in conformance with project plans and specifications. Mr. Hamlin is also responsible for scheduling and coordinating all field efforts conducted by Conti and its subcontractors.





Mr. Scott Freeman has been assigned to serve as CQCSM for the project and is responsible for the implementation of the CQC Plan. Mr. Freeman reports to Mr. James Stewart, Vice President of Conti and a senior corporate officer, on all project QC matters that may require involvement at a corporate level. Mr. Stewart is the Executive Sponsor for the project. Mr. Freeman will communicate with both the Project Manager and Project Superintendent on a daily basis regarding all QC aspects of the project and will be responsible for scheduling, coordinating and implementing all aspects of the CQC Plan. In addition, Mr. Freeman will be Conti's POC for scheduling and coordinating chemical data quality control activities being implemented by Conti in the field to ensure that this element of the CQC Plan is properly executed.

Mr. Robert Scerbo, a Conti employee, has been designated as the Chemical Quality Control Coordinator (CQCC). Mr. Scerbo has conducted chemical investigations at many HTRW sites in NY, NJ, Puerto Rico, and the Virgin Islands and served as Chemical Data Control Coordinator for numerous investigations. He is qualified to ensure proper sample management, QC of sampling, chain-



of-custody, and data management and evaluation. Mr. Scerbo has served as CQCC on large landfill projects and has been responsible for preparation and management of Chemical Data Quality Management Plans and SAPs for numerous projects consistent with USACE guidance documents. Mr. Scerbo will be responsible for all aspects of chemical data quality control and will report to and coordinate with the CQCSM on all such matters.

3.2 Authority

Each individual involved in the QC organizational structure has the authority necessary to execute their responsibilities as documented in their respective letters of assignment contained in Appendix A. The Project Manager, Project Superintendent and CQCSM have full authority to secure the personnel, equipment and materials necessary to implement the project consistent with contractual requirements. Each has the authority to stop work not in compliance with quality standards contained within the project plans and specifications. The CQCSM has the authority to implement all aspects of the CQC Plan. The CQCC has the authority to conduct all aspects of chemical data quality control.

3.3 Qualifications and Responsibilities

The following personnel are directly responsible for various aspects of the quality achieved during execution of this contract. Consistent with the specifications, letters of assignment and resumes are included in Appendix A. These documents verify the individual's formal assignment to the project, their areas of responsibility and authority and their qualifications, in resume format, to assume the assignment. For individuals subordinate to the CQCO involved in aspects of the project such as the Project Chemist and Environmental Sampler, this information will be provided in the SAP.

3.3.1 Contractor Quality Control System Manager

Specific to the requirements of this project, the CQCSM shall be:

- A graduate engineer or construction manager with a minimum of 5 years experience on construction similar to this contract;
- · On the site at all times during construction; and
- · Employed by the prime contractor.

In addition, the CQCSM shall have completed the course entitled "Construction Quality Management for Contractors". An alternate for the CQCSM shall also be identified in the plan to serve in the event of the CQCSM's absence. The requirements for the alternate shall be the same as for the designated CQCSM.

Conti has selected Mr. Scott Freeman to serve as CQCSM for this project and Mr. Dean Hall, to serve as the alternate. Both satisfy all of the requirements except for the completion of the "Construction Quality Management for Contractors" course. Mr. Freeman has completed this course and a certificate so noting is included in Appendix A. However, due to scheduling conflicts, Mr. Hall has yet to complete the course but is expected to do so in the near future. Conti recognizes that the approval of Mr. Hall for the designated position is contingent upon completion of the required course and will provide documentation attesting to the same upon course completion by Mr. Hall.

The CQCSM is responsible for the development, execution and overall management of the CQC Plan for the project. The CQCSM has the authority to act in all QC matters for Conti as well as full stop work authority related to any work being performed that is not in compliance with project QC requirements. Such authority is provided in the assignment letter contained in Appendix A. Duties for which the CQCSM is responsible include but are not limited to:

Review and approval of all submittals prior to transmittal to the USACE;



Providing the necessary initial information, subsequent data updates and transmit the current file via a diskette with each Pay Request (as a minimum frequency);

Execution of the three phases of control (Preparatory, Initial and Follow-up) for all Defined

Features of Work (DFOWs)

Assignment of inspection and testing personnel to the project after verifying and documenting that their qualifications are consistent with project requirements;

Scheduling and coordination of the activities of all QC personnel assigned to the project;

Coordination of all QC activities with the Project Manager, Project Superintendent and Site Safety and Health Officer to ensure that QC activities are performed on a safe and timely basis and do not adversely impact the project schedule;

Establishing and maintaining a document control system for all testing and inspection records

and associated documentation and as-built drawings for the project;

Development of QC related forms and reports required for the project

- Establishing and maintaining a test equipment calibration program for all QC equipment used on the project;
- · Verification that onsite and/or subcontracted laboratories are in compliance with CQC Plan requirements;

Supervision of QC testing as required by the contract;

Inspection of materials/equipment received onsite to ensure contract compliance;

· Performance of punch out, pre-final and final inspections

- Implementation of changes to correct deficiencies discovered as a result of inspections
- Preparation of daily QC reports documenting the status and activities of the project

The CQCSM is also responsible for coordination and scheduling with the CQCC to ensure that all aspects of chemical data QC are performed in accordance with contract requirements. The CQCC will report directly to the CQCSM.

The CQCSM will be responsible for ensuring the QC system and process provides the information/data required to support preparation of the Engineer's Certification Report as defined in NYCRR Part 360. The Certifying Engineer will be responsible for preparation of the Closure Certification Report. The Certifying Engineer will report to the QCSM who will manage the QC process including the preparation of Closure Reports.

3.3.2 Project Manager

The Project Manager is trained in corporate administrative and safety and health procedures, technically qualified and possesses the necessary level of experience to manage the project in a manner that satisfies all contractual obligations related to safety, quality, cost and schedule. Conti has assigned Mr. Thomas Hernon, PE to serve as Project Manager for this contract.

The duties for which the Project Manager is responsible include but are not limited to:

Acting as the Point of Contact (POC) for Conti with the USACE COR;

- Directing and managing of all aspects of the project in compliance with contractual and technical requirements;
- Representing Conti in all dealings with all organizations involved in the project;

· Procuring and managing all subcontractor services retained by Conti;

· Approving all invoices submitted to the USACE;

- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- · Coordinating and communicating with the Project Superintendent, SSHO and CQCSM in the performance of all work related to the project.



3.3.3 Project Superintendent

The Project Superintendent is trained in corporate safety and health and administrative procedures, technically qualified and possesses the necessary level of experience to implement all field work in a manner that satisfies all contractual obligations related to safety, quality, cost and schedule. Conti has assigned Mr. Richard Hamlin to serve as Project Superintendent for this project.

The Project Superintendent is responsible for the quality of all work performed in the field by all labor forces, including both Conti's and those of subcontractors working on the project and under Conti's control. The Project Superintendent reports directly to the Project Manager. The duties for which the Project Superintendent is responsible include but are not limited to:

- Directing all field work in compliance with all project requirements including subcontractor work efforts:
- Scheduling and coordinating all field work performed by Conti and its subcontractors;
- Ensuring that all field work is performed in accordance with the CQC Plan and the Site Safety and Health Plan (SSHP) and meets or exceeds all quality standards.

3.3.4 Chemical Quality Control Coordinator

The Chemical Quality Control Coordinator (CQCC) for this project must posses the following minimum qualifications:

- 4 years of experience related to investigations, studies, design and remedial actions at HTRW sites; and
- 2 field seasons (or one continuous calendar year) experience in calibration and operation of various field monitoring devices as well as standard analytical chemistry methods common for analyzing soil, water, air and other materials for chemical contaminant assessment, including hazardous waste manifesting.

The CQCC is responsible for ensuring that all chemical-related objectives including responsibilities for Data Quality Objectives (DQO) definitions, sampling and analysis, project requirements for data documentation and validation, and final project reports are attained. The CQCC need not be present onsite during routine sampling, but shall be available for consultation with Government personnel and the CQCSM. The CQCC will report to the CQCSM on all chemical data QC matters for the project. The CQCC is also responsible for management and coordination of the chemical QC staff including subordinate personnel such as the Project Chemist and Environmental Sampler. When the CQCC is not present on-site scheduling and coordination will be provided by the CQCSM.

3.3.5 Chemical QC Staff

Chemical QC staff qualifications and responsibilities for positions such as the Project Chemist and Environmental Sampler are described in detail in the SAP for this project. Related to the CQC Plan, all chemical QC staff will report to the CQCC. If the CQCC is not present on-site the staff will coordinate scheduling and testing efforts with the CQCSM.

4.0 Quality Control System

The Quality Control System that will be utilized to ensure the quality of all work performed by Conti or its subcontractors, suppliers, and fabricators involves the following basic elements; Definable Features of Work, Submittals, Project Quality Control Meetings, Three Phases of Control, Tests, Inspections, Documentation and Notification of Noncompliance. Each element is described below.



4.1 Definable Features of Work

All tasks defined in the project specifications and drawings that are separate and distinct from other tasks, have separate control requirements, may be identified by different trades or disciplines or may be work by the same trade or discipline performed in a different environment are identified as Definable Features of Work (DFOWs). All DFOWs are controlled during execution using the three phases of control discussed below and will undergo a completion inspection upon conclusion of the work associated with the DFOW. A listing of the DFOWs identified for this project are presented in a summary table contained in Appendix B. The CQCSM tracks the status of QC activities related to all DFOWs using this summary table. A copy of the table is provided as part of the daily QC report prepared by the CQCSM.

The CQCSM is responsible for the execution of the Preparatory, Initial, and Follow-up control activities, any and all testing required to demonstrate the adequacy of the DFOW, inspections related to the DFOWs, identification and correction of any noncompliance with contract requirements for the DFOW and documentation of all QC activities related to the DFOW. Additional qualified QC staff may be used to assist the CQCSM in the various QC activities to accommodate variations in workload and/or specific areas of technical expertise, however the CQCSM is ultimately responsible for ensuring the QC of all DFOWs.

4.2 Submittals

During the startup phase of the project, all requisite submittals contained within the contract drawings and specifications are identified and made using the procedures and format presented in the most current version of USACE ER 415-10, Construction Contractor Submittal Procedures and ENG Form 4288. ENG Form 4025 will be used for the transmitting the submittals. A copy of the submittal register prepared by the USACE for this project is presented in Appendix C. Conti recognizes that this register may not be all inclusive and additional submittals may be required. Upon receipt of the diskette containing the computerized version of the project submittal register, the CQCSM will complete columns "a" and "s through u" and submit the forms in both hard copy and electronic file to the Contracting Officer Representative (COR) for approval within 15 calendar days after Notice to Proceed.

Tracking of all submittals is performed using both the Network Analysis System (NAS) established for the project schedule and an electronic version of the submittal register (ENG Form 4288). Both are modified as necessary to reflect the current status of all submittals.

The Submittal Register will be used as a scheduling document for submittals and will be used to control submittals throughout the life of the project. According to the project specifications, a minimum of 30 calendar days shall be allowed for review and approval of all submittals by USACE. Such timing will be included in the timetable for all submittals contained in the NAS to ensure that submissions, reviews, and approvals are in compliance with schedule and sequencing requirements. Prior to submission to the USACE, the CQCSM is responsible for certifying that all submittals are complete and in compliance with contract documents and drawings.



The CQCSM will also stamp, sign and date the submittals as required. The stamp is similar to the following:

Conti Environmental, Inc.
Approved
Approved with corrections as noted on submittal data and/or attached sheet(s)
Signature:
Title:
Date:

Submittals for interrelated items will be submitted concurrently. Certifications and/or warranties will be submitted and accompany the appropriate items for which they apply.

This submittal process includes all submittals prepared by Conti for its own work as well as those required from its subcontractors, fabricators and suppliers. In addition, the Project Manager, Project Superintendent and the CQCSM will meet with the USACE at mutually agreed upon intervals to review the existing version of the submittal register based upon the required work items completed and those still to be performed. Following each meeting, a revised version of the submittal register will be issued to the USACE and Conti personnel. At a minimum, a diskette containing the current version of the submittal register will accompany the monthly payment request submitted to the Government.

4.3 Project Quality Control Meetings

Project QC meetings will be conducted through the course of the project to first establish the means and methods that will be used to monitor QC related to the project and subsequently to verify that the QC program is being properly implemented.

4.3.1 Coordination Meeting

Following the Pre-Construction Conference and submittal of both the CQC Plan and SAP, but prior to the start of construction and acceptance by the Government of the CQC Plan and the SAP, a Coordination Meeting will be held. This meeting will be scheduled, convened and conducted by the Government. The purpose of the meeting is:

- 1. To achieve a mutual understanding of the QA and QC roles to be performed by the USACE and Conti, respectively related to both CQC and chemical data quality;
- 2. To review and discuss all elements of the CQC Plan and the SAP; and
- 3. To establish the professional and cooperative working relationships needed to achieve the mutual goal of constructing a quality product that conforms to contract requirements.



Attendance will include at a minimum, the CO or COR, CQCC and the CQCSM. However Conti recognizes the benefits of also having the Project Manager, Project Superintendent and SSHO present as well as selected members of the CQC and chemical data QC staffs in attendance.

During the meeting a mutual understanding of all quality control system details shall be developed, including the forms used to record CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Conti's project management and QC staff with USACE QA personnel. Safety and health issues related to QC activities will also be identified and discussed with the SSHO.

The meeting will also address management of the chemical data QC program. This will discussions related to a list of DFOWs that involve chemical and radiological measurements, project DQOs, project submittals, chemical data documentation, chemical data assessment, required sampling and analysis protocols, and minimum reporting requirements, all of which will mutually agreed upon by the Government and Conti.

Minutes of the meeting will be prepared by Conti and signed by the CQCSM and the CO or COR. The minutes will become part of the contract file. Either the USACE or Conti may call subsequent meetings to reconfirm mutual understandings or address deficiencies in the CQC and/or chemical data QC systems and/or procedures.

4.3.2 On-Site Assurance Meetings

Conti will conduct weekly or bi-weekly QC meetings chaired by the CQCSM and attended by designated members of Conti's management, field, and QC staff, and if warranted, representatives from its subcontractors, vendors and/or fabricators. USACE QA personnel will also be invited to participate. The meeting serves as a means to coordinate quality-related activities and ensure that all requirements and milestones are being achieved. During the meetings the following items will be discussed along with other items as necessary based on the conduct of the project and items requiring resolution:

- 1. Safety and health issues related to QC activities;
- 2. Work accomplished and upcoming;
- 3. Information needs;
- 4. Last meeting action items;
- 5. Status of any deficiency notices;
- 6. Physical and analytical testing status and results; and
- 7. Project schedule and inspection schedules related to the Three Phases of Control discussed below.

Meeting minutes will be developed by the CQCSM and will be submitted to the USACE for information purposes.

QC is also an agenda item for the weekly on-site project meeting, during which time status of previous action items is presented and discussed, new issues are presented, and upcoming activities are identified and coordinated.

4.4 Three Phases of Control

The CQCSM will employ a minimum of three phases of control to complete each DFOW in accordance with project requirements. The three primary phases are Preparatory, Initial, and Follow-up are discussed in detail in the following subsections.



Project-specific checklists are used for each control phase of each DFOW. These checklists are submitted as part of the project CQC plan and, upon USACE acceptance, will assist in assuring that all relevant considerations for the control of work associated with each DFOW are systematically addressed. Checklists to be used in controlling the quality of the DFOWs addressed in this CQC Plan are presented in Appendix D.

The CQCSM will notify the USACE at least 2 working days prior to the initiation of Preparatory and Initial Phase control activities, and will advise the USACE's QA personnel daily as to the anticipated schedule of Follow-up activities. The inspection procedures that will be used in executing the three phases of control will be in accordance with contract requirements if specified.

4.4.1 Preparatory Phase

The Preparatory Phase of control will be performed prior to beginning work on each DFOW, after all required plans/documents/materials are approved/accepted and after copies are at the work site. All preparatory phase activities will be included in the NAS that is used to schedule the project, ensuring that adequate lead-time is provided for startup of all DFOWs. The USACE will be notified at least 2 working days in advance of beginning the preparatory control phase of each DFOW. This phase shall include a meeting conducted by the CQCSM and attended by the Site Superintendent, other CQC personnel participating in the QC activities related to the DFOW being initiated, the foreman responsible for the work activities on the DFOW and the SSHO. The purpose of this meeting is to assure an understanding of the quality and technical requirements, safety and environmental precautions, materials and equipment, testing requirements, acceptance criteria, workmanship, and quality certification documentation needed. Interfaces with USACE representatives will be identified, including third party inspection or regulatory personnel.

The results of the preparatory phase actions will be documented by separate minutes prepared by the CQCSM and attached to the daily CQC report. The Site Superintendent and CQCSM shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

The results of the Preparatory Inspection will be attached to the daily QC report. At a minimum, the Preparatory Phase Inspection shall include:

- · A review of each paragraph of the applicable specifications;
- A review of the Activity Hazard Analysis to assure safety requirements are met;
- A review of the SSHP related to control activities to be performed:
- · A review of the applicable drawings;
- A check to assure that all materials and/or equipment have been tested, submitted and approved;
- · A check to assure that provisions have been made to provide required inspection and testing;
- Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract;
- A physical examination of required materials, equipment, and sample work to assure that they are available, conform to approved shop drawings or submitted data and are properly stored;
- Discussion of procedures for controlling the quality of the work including handling of any repetitive deficiencies;
- Documentation of construction tolerances and workmanship standards for that feature of work;
- A check to ensure that the portion of the plan for the work to be performed has accepted by the CO: and
- · A review of applicable regulatory requirements.



4.4.2 Initial Phase

The Initial Phase of control will be conducted at the beginning of a DFOW and after a representative sample of the work has been completed. The CQCSM will meet with the staff directly involved in the performance of the work and with USACE QA personnel and will verify conformance of the sample work with the requirements of the construction documents by reviewing the workmanship, inspection and test results and the adequacy of the safety and environmental precautions taken. Inspection results shall be attached to the daily QC report. Exact location of the initial phase inspection shall be recorded for future reference and comparison with follow-up phases.

As a minimum the initial phase inspection shall include:

- · A review of preparatory phase meeting minutes;
- A check of preliminary work to ensure that it is in full compliance with contract requirements;
- Verification of the adequacy of controls to ensure full contract compliance including verification of required control inspection and testing plans and results;
- Establishment of level of workmanship and verification that it meets minimum acceptable workmanship standards, including a comparison to sample work products if appropriate;
- Resolution of all differences identified during the initial control phase;
- A safety inspection to include compliance with and upgrading of the safety and health plan and activity hazard analysis as necessary;
- A review of the activity hazard analysis with each worker;
- The Initial Phase Inspection should be repeated for each new work crew to work onsite or at any time acceptable specified quality standards are not being met.

The USACE may determine that additional preparatory and initial phase controls must be conducted on the same DFOW. Reasons for repeating preparatory and initial control phases may include:

- The quality of ongoing work is unacceptable;
- There are changes in the acceptable CQC staff, onsite production supervision or work crew;
- Work on a DFOW is resumed after a substantial period of inactivity;
- · Other problems develop.

4.4.3 Follow-up Phase

The CQCSM will use the QC staff to monitor each DFOW on a daily basis to verify continuing conformance to the requirements established in the preparatory initial control phases. Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of a particular DFOW. The checks shall be made a matter of record in the CQC documentation. USACE QA personnel will be advised at the conclusion of each workday as to the schedules of proposed follow-up activities that will be performed during the next workday.

Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional DFOWs which may be affected by the deficient work. The CQCSM is responsible to verify that any and all deficiencies have been corrected before the start of additional features of work in areas of prior non-conformity. Neither Conti nor its subcontractors, supplier and fabricators will not build upon or conceal non-conforming work.

4.5 Tests

All tests and inspections will be performed in accordance with the procedures contained within the project contract documents. For this project Conti will procure the services of USACE-and New York



State-approved testing laboratories. The CQCSM will be responsible for the tracking, verification and documentation of all test and inspection activities and data. Conti will perform specified or required tests to verify that control measures are adequate to provide a product that conforms to contract requirements. Upon request, Conti will furnish to the USACE duplicate samples of test specimens for possible testing by the USACE. Testing includes operation and/or acceptance tests when specified.

Conti will perform the following activities and record and provide the following data:

· Verify that testing procedures comply with contract documents;

· Verify that facilities and testing equipment are available and comply with testing standards;

• Check test instrument calibration data against certified standards;

Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared and personnel are trained in their

appropriate usage;

Results of all tests taken, both passing and failing tests, will be recorded on the CQC report for the date taken. Specification paragraph reference, location where the tests were taken, and the sequential control number identifying the test shall be given. If approved by the CO, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of the tests performed by an offsite or commercial test facility will be provided directly to the CO. Conti recognizes that failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

4.5.1 Identification of Testing Laboratories

For this project Conti has retained the services of USACE-and New York State approved testing laboratories [to be procured after approval of Work Plans] to perform the Atterberg limit, grainsize, moisture content and density characteristics testing required for the borrow source assessment. The testing laboratory will also perform density control testing for placement of the cover soil. Letters of assignment and USACE laboratory approval are presented in Appendix E. All information related to the analytical laboratories that will be used in the acquisition of chemical data for this project are presented in the SAP.

Conti's COCSM will ensure performance of the required density testing on the cover soil placement.

4.5.2 Testing Plan and Log

All physical testing required for the project is summarized in the Testing Plan and Log (TPL) presented in Appendix F. A similar TPL for all analytical testing is presented in the SAP. Physical testing for the project involves borrow source assessment and control of density for cover soil placement. The TPL will be used by the CQCSM to identify and track testing activities throughout the course of the project thereby ensuring that all testing is performed in accordance with project requirements. The TPL will be reviewed and updated to be consistent with site activities and to reflect applicable revisions of the CQC Plan.

A listing of the test procedures that will be employed for the physical testing is presented in Appendix F. Conti will maintain a copy of the most current version of each test procedure for use during execution of the tests.

As with the physical testing, the TPL for chemical testing will be reviewed by the CQCSM and CQCC during the Preparatory Control phase of each DFOW to identify what analytical sampling and/or testing is required. The CQCC will track and report the status of QC activities related to analytical sampling and analysis to the CQCSM such that analytical testing efforts are being monitored by the CQCSM.



4.6 Punch-List, Prefinal and Final Inspections

In addition to the three phases of control that will be employed to verify that all DFOWs are performed in accordance with contract requirements, a series of 3 individual inspections, as required in the project specifications will be made at prescribed intervals to ensure that work is continuing in an acceptable manner for the entire project and/or specific elements thereof. These inspections will be performed by the various Conti and USACE personnel in accordance with the requirements of the inspection. The three inspections are identified as the Punch-list Inspection, Pre-final Inspection and Final Acceptance Inspection and are described in detail in the following sections. The results of all inspections will be documented by the CQCSM, included as part of the contract file and be provided to the CO or COR.

4.6.1 Punch-List Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQCSM will conduct an inspection of the work and develop a punch list of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the QC documentation, as required in the section entitled "Documentation" presented below, and shall include and estimated date by which the deficiencies will be corrected. The CQCSM will make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the CQCSM will notify the USACE that the project or specific work element is ready for USACE Pre-Final inspection.

4.6.2 Pre-Final Inspection

The USACE will perform this inspection to verify that the facility, project or specific work element is complete and in the case of a structure, is ready to be occupied. Specific to this contract, since no new facilities are included as part of the work, the Pre-Final Inspection will be taken to mean completion of the project or specific element of work. The CQCSM will ensure that all items on this list have been corrected before notifying the USACE so that a Final Inspection with the USACE can be scheduled. Any items noted on the Pre-Final Inspection will be corrected in a timely manner. These inspections and any deficiency corrections required as a result of the inspection will be accomplished within the time frame slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

4.6.3 Final Inspection

The CQCSM and the Site Superintendent or other primary management person (Project Manager) and the COR will be in attendance at this inspection. The final acceptance inspection will be formally scheduled by the CO based upon the results of the Pre-Final inspection. Notice will be given to the CO at least 14 days prior to the final acceptance inspection and will include Conti's assurance that all specific items previously identified to Conti as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection.

4.7 Documentation

All documentation associated with the project will be distributed to appropriate personnel with the original versions maintained within fireproof file cabinets. Computer generated documents will be copied to a separate electronic location within Conti's Wide-Area Network exclusive of the project site. Procedures involving project correspondence and document control and QC documentation will be managed in accordance with the procedures indicated below.



4.7.1 Project Correspondence and Document Control

All contract documents and correspondence will be channeled through the Project Manager. The Project Manager will be responsible for assuring that the current revision of all contract design drawings and shop drawings are provided to the CQCSM who will in turn distribute them to all project management personnel including the Site Superintendent and SSHO as well as construction crews, subcontractors and vendors as required. Subcontractors and vendors will be responsible for distribution of current revision documents to their crews and production facilities. Manager will maintain a log of all incoming and outgoing correspondence for the project and will assign a number to all incoming and outgoing correspondence and log the entry into a bound logbook or computer file. Incoming documents will be stamped "Received" with the date and time recorded. A master set of design and shop drawings will be maintained at the site. Upon receipt or changes in eith the project specifications and/or drawings the current revision specification page/drawing will be placed over the previous revision with the previous revision stamped "Superseded By Revision No. and dated by the CQCSM. QC Inspectors will be required to check the master set and obtain current revision drawings prior to performing any inspections on work covered by the drawing. The project management team will review current revision design or shop drawings upon receipt to determine changes that may require amending subcontracts and/or purchase orders.

Project correspondence generated will be maintained in hard copy and electronic version with copies of all such documentation being provided to the Project Manager and other project management staff as appropriate.

4.7.2 Project QC Documentation

The CQCSM shall maintain current records of QC operations, activities and tests performed including work of suppliers and subcontractors. These records shall include, but are not limited to all inspections, conformance tests, delivery documents, Certificates of Compliance and Certified Mill tests. The records will be identified with, and referenced to, the DFOW or NAS element they represent. The records will be kept on site in a fireproof file cabinet and will be available to the USACE at all times. Upon completion of the project, the original documents will be turned over to the USACE, after reproductions have been made for the contract file.

The CQCSM shall prepare and maintain daily quality control reports that include records providing factual evidence that required QC activities and/or tests have been performed. The daily QC report, an example of which is contained in Appendix G shall include the work of subcontractors and suppliers as well as at a minimum the following information:

- · Contractor/subcontractor and their area of responsibility.
- Operating plant/equipment with hours worked, idle or down for repair.
- Work performed each day, giving location, description, and by whom. Each phase of work performed will be identified by its activity number.
- Test and /or control activities performed with results and references to specifications/drawing requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements. Also, quantities of materials removed from the site and its ultimate destination. Quantity records will include daily and cumulative totals for each material.
- Submittals reviewed, with contract reference, by whom and action taken.
- · Off-site surveillance activities including actions taken.
- Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- Instructions given/received and conflicts in plans and/or specifications.
- · Contractor's verification statement.



- A description of trades working on the project.
- The number of personnel working.
- Weather conditions encountered.
- · Any delays encountered and the reason(s) for the delay.

The report shall also include both conforming and deficient features as well as a statement verifying that equipment and materials incorporated in the work and the workmanship comply with contract requirements. The original and one copy of these records, in report form, will be furnished to the USACE within 24 hours after the date(s) covered by the report, except that reports will not be submitted for days on which no work is performed. However, as a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendars days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQCSM. The report from the CQCSM shall include copies of test reports and copies of reports prepared by all subordinate QC personnel.

Documentation prepared will be printed and hard copies maintained in the project contract filing system. Depending upon the reporting requirements established by the COR, copies of test reports and inspection reports prepared by subordinate QC staff will be copied and transmitted daily. Additional QC forms typically required for proper documentation of work activities are included in Appendix G and include such items as the Permanent Materials Report and Trip Report.

5.0 Non-Compliance Identification/Corrective Actions

The CQCSM is ultimately responsible for the identification, correction, and documentation of any deficiencies in the work performed by Conti, its subcontractors, suppliers and/or fabricators. However, subordinate QC staff along with field supervisory personnel have individual responsibilities in this regard as well. During implementation of the three-phased control process, any individual who identifies a deficiency is responsible for formally conveying its existence to the CQCSM via a Noncompliance Identification / Corrective Action (NICA) Report form, an example of which is presented in Appendix H. The report is structured to collect critical information relating to the deficiency, such as the DFOW involved as well as when, where, and by whom the deficiency was identified. This report is then immediately given to the CQCSM who: 1) enters it into a master deficiency tracking log (presented in Appendix H) and uniquely identifies it by issuing the next consecutive number in the log to the document; 2) notes the existence of the deficiency in the DFOW tracking log 3) advises the USACE's QA personnel of the deficiency; and 4) includes a copy of the NICA report and NICA tracking log in the daily QC report.

The CQCSM then notifies and discusses the existence of the deficiency with the appropriate work force individual(s) responsible for its correction. A corrective plan of action is developed and implemented following USACE approval, if needed. All of these activities are fully documented in the original NICA report form and noted in the deficiency tracking log used to identify the current state of resolution of the deficiency. NICA Reports for outstanding deficiencies are issued daily during the period from identification through resolution, so that the USACE is kept abreast of the state of corrective action for each deficiency. In addition, the completed NICA report serves as the means to document all aspects of the deficiency. Copies of all such documentation is transmitted to the USACE and maintained in the project QC document filing system by the CQCSM.

The CQCSM indicates the resolution of each deficiency in the master deficiency tracking log as well as in the DFOW tracking log. This redundancy provides a means for readily identifying the existence and resolution of any deficiencies related to a particular DFOW. By reviewing the DFOW tracking log prior to conducting a Completion Inspection, the CQCSM is able to verify that any outstanding deficiencies have be corrected and that the DFOW is ready for inspection. The deficiency resolution



and monitoring process is also used to respond to Quality Assurance comments from the client and provides an effective means of acknowledging, tracking, resolving, and documenting any such issues should they arise.



28 March 2002

Attention: Mr. Scott Freeman

Reference: Assignment as Contractor Quality Control System Manager for Landfill 7 Cover Improvements Project at Former Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Contractor Quality, Control System Manager for the above referenced project. In this capacity you are responsible for and will implement QC activities contained in the CQCP prepared for this project. Specific responsibilities include, but are not limited to:

- Implementation of the CQCP;
- Coordination of all QC activities with the Project Manager and Project Superintendent as well as the USACE's QA organization;
- Supervision of all tests required by the specifications;
- Field inspections by yourself or the QC staff assigned by you;
- Maintenance of all required Quality Control Documentation, as per the specifications;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Submittal of all required QC documentation, including Daily QC Reports and QC test reports.

As Contractor Quality Control System Manager you have authority to stop work that is not compliant with the contract. You will report to directly to Mr. James Stewart, Vice President Operations for this project on all matters relating to QC.

Very truly yours

_James Stéwart

Vice President of Operations



Scott Freeman, P.E., L.S.P. Project Manager

Highlights of Relevant Experience

- 18 years of hazardous waste site remediation, project management experience on over 100 sites, including more than 20 Superfund sites
- 18 years experience on HTRW investigations, study, design and remedial action projects
- 9 years of hands-on implementation experience guidelines throughout the NAD region with environmental regulations and guidance: CERCLA; RCRA; SDCWA; CWA; project technical and administrative management, TSCA; NEPA; NESHAPS; USACE general and HTRWspecific construction guidelines; O&M; and safety and health requirements and guidelines
- 4 years of experience working with cost reimbursable contracts
- Experience in detailed engineering design, civil and mechanical/process construction, and safety/environmental compliance

Direct experience with numerous remediation technologies SVE/Air Sparging, Bioremediation, Thermal Soil Treatment, Capping/Containment, Slurry Walls/Groundwater Control, Stabilization/Solidification, Groundwater Treatment, Decontamination/Demolition including Radiaoactive Decontamination, Asbestos/Lead Abatement

 Over 8 years of turnkey design/build experience for HTRW projects

a. Education

Tufts University, BS, Civil Engineering, 1981

Thayer School of Engineering, Dartmouth College, MS Engineering, 1983

Registered Professional Engineer, Civil: No. 34054, MA; No. 10457, NH; No. 32399, NJ

Licensed Hazardous Waste Site Cleanup Professional (LSP) No. 6210

Massachusetts Licensed Construction Supervisor, No. 078708

USACE Construction Quality Management for Contractors certified July 2001

OSHA 29CFR 1910.120, 40-hour, 1989; Supervisor, 1987 and 1992; Annual Refresher, 2001

OSHA 29CFR 1926.65 10-hour Outreach/Construction Safety 1994 and 1998

First Aid/CPR trained, 1999

Trained in Confined Space, Fall Protection, Lockout/Tagout, Competent Person/Excavation, Electrical Safety

b. Experience

1) 05/01 to Present: Conti Environmental, Inc., South Plainfield, NJ, Project Manager. Serving as a primary point of contact, manages and executes HTRW remediation projects in accordance with

approved SOWs and work plans, and with all federal, state, and local laws and regulations. Ensures full coordination between the SHM and SSHO to make certain all site activities are performed safely. Using MIS, plans and estimates task orders, manages productivity and technical performance, and controls cost and schedule to project baselines. Evaluates project cost and performance status related to all site personnel, subcontractors and suppliers. Prepares all project technical and financial reports, schedules, and invoices. Approves all material and subcontractor procurement and payments. Ensures the project's contractual QC requirements are satisfied. Maintains frequent communication and coordination with client for the duration of projects, including detail progress and cost reporting, to ensure successful completion. Relevant project experience includes:

Project Manager, Fort Indiantown Gap Tank Removal and Installation, Indiantown Gap, PA. Manages this \$620,000 cost-reimbursable task order performed for the USACE-Baltimore District under Conti's ID/IQ MARC Contract. The work involves the removal of 31 underground storage tanks and associated piping, excavation and recycling of contaminated soils, restoration of the properties, preparation of closure reports and documentation, and the procurement of replacement ASTs. The work is being performed under the Pennsylvania DEP regulations and applicable Federal regulations for underground storage tanks. Conti is executing the work using a combination of specialty subcontractors as well as our own crews for some of the critical site restoration work.

Chemical Insecticide Project Manager, Corporation Superfund Site, NJ. Manages the first task order of \$25,000 for consultation on this Region II Superfund Site. Remediation includes excavation of over 100,000 cubic yards of soil contaminated with arsenic, pesticides, and herbicides followed by off-site treatment and disposal. Conti is currently retained to consult to the design team on engineering and construction challenges on this large removal project. Our participation as a partner in the design effort supports cost-effective design decisions, minimizes design deliverable requirements, and provides for a smooth transition from design phase to construction phase.

2) 07/00 to 5/01: Cedarview Projects, Inc., President. Consulted to industries, attorneys, contractors, and engineering firms in design, construction quality control, cost estimating, and



construction management. Completed design plans and specifications for a 30,000 ton on-site treatment project of petroleum-impacted soils using asphalt batching solidification/stabilization technology. Designed a cap for a development site with contaminated soils impacted by lead and PAHs. Completed conceptual design, O&M approach, and construction cost estimates for mitigation of heavy oil seepage into a raceway beneath a former textile mill. Field Construction Manager for demolition of a former radar installation at a government-owned site, followed by site restoration. Consulted on a large removal of PCB and petroleum-impacted soil, and groundwater remediation at a former transformer facility.

3) 03/97 to 07/00: CH2M Hill Constructors, Inc., Senior Project Manager. Managed HTRW design/build environmental cleanup projects for DoD, government agencies, and private clients. Recruited and managed staff of eight managers, engineers and specialists. Releveant project experience includes:

Project Manager, GCL Tie and Treating Superfund Site, USACE, Sydney, NY (PD# ***). Managed this \$12,000,000 cost-reimbursable remediation project directing work, which included low temperature thermal treatment of over 80,000 tons of contaminated soil, construction dewatering, groundwater treatment, on-site laboratory (PAH, VOC, BTU, Moisture), and wetlands remediation. Assumed control of the site from previous contractor and rapidly resumed operations controlling costs and schedule. Achieved savings of over \$500,000 through working with the regulatory representatives on alternate approaches to thermal treatment, wetlands work, and groundwater treatment. Responsible for implementing rigorous QA/QC and safety programs. Provided O&M services.

Project Manager, Lagoon Remediation, Drum/Soil Structural Demolition at former Chemical Plant, Andover, MA. Managed this \$3,000,000 cleanup project involving sludge removal, structural demolition, dewatering, UST/piping removal, drum excavation, waste characterization, transportation, and disposal. Obtained wetlands and building permits, closely coordinated with local authorities and the public, and helped prepare site for leasing and redevelopment. Prepared all regulatory including as-built/closeout documenting QC for site backfilling and restoration.

Project Manager, J Well Potable Water Treatment System at Massachusetts Military Reservation, Otis ANG Base, MA. Managed the construction on this \$550,000 project of a 1000 gpm capacity water treatment system for removing Chlorinated solvents including installation of a prefabricated metal building with heat, process equipment, electrical/mechanical systems, foundation and temporary site facilities. Installed systems on a fast-track basis, satisfying quality and permit requirements. Coordinated with regulators ensuring compliance with local building codes. Oversaw start-up of system.

Field Construction Manager/QC Enaineer. Remedial Construction at the Cryochem Site, Boyertown, PA. Managed the construction and administrated field QA/QC plan on this \$1,000,000 cost-reimbursable project for ten 150 ft deep bedrock extraction wells, an air stripper, vapor phase carbon treatment, prefabricated metal building, PLC-based control system with remote monitoring feature for remediation of Solvent contaminated Completed construction on-time and within budget, and assembled accurate as-built and quality control documentation. Coordinated local subcontractors, system start-up, and performed initial system operation and maintenance.

4) 12/92 to 03/97: RUST Remedial Services, Inc., Senior Project Manager. Managed HTRW cleanup projects up to \$25 million dollars in value. Responsible for environmental compliance, quality control, staffing, material procurement, subcontractor management. Supervised up to approximately 50 employees. Relevant project experiences include:

Project Manager, Industri-plex Superfund Site Soil, Air, and Sediments Remedial Construction, Woburn, MA. Managed cleanup activities on this \$25,000,000+ project for removal of Arsenic, Chromium, Lead, BTEX, POLs, PAHs, Pesticides and other compounds. Work involved demolition of steel/concrete structures, removal of USTs and piping, over 50 acres of geotextile cap, over ten acres of wetlands remediation, HDPE landfill treatment plant, lagoon closure, and on-site water treatment. Mobilized work force of over 100 personnel and over 50 pieces of heavy equipment, imported over 1,000,000 cubic yards of materials to complete the job. Working with regulators developed alternate approach to wetlands remediation achieving cost and schedule savings.

Senior Project Manager, Remediation of PCB-Contaminated Soils, FINAST, Providence, RI. Managed work on this \$600,000 project including excavation of PCB contaminated soil, TSCA/RCRA waste characerization, geosynthetic cap. Completed this project on a fast track basis, in parallel with site



development consecuction so that a new supermarket could be opened on schedule.

5) 07/90 to 12/92: Balsam Environmental Consultants, Senior Engineer. Managed engineering design and project management efforts for HTRW cleanup projects. Supervised engineering design group of six engineers, and served as in-house expert on civil design, cost estimating, and construction.

Lead Design Engineer for a Union Chemical Company Superfund Site in Maine. Managed engineering design aspects of Remedial Design/Remedial Action activities for the facilities demolition component of the remedy. Evaluated means and methods for decontaminating and demolishing a former incinerator complex; conducted pre-hire review of qualifications of remedial contractors; and prepared work plans, demolition plans, and specifications.

Project Engineer for the Mottolo Superfund Site Feasibility Study in New Hampshire. Performed a detailed analysis of site remedial alternatives with respect to engineering design and permitting considerations. Prepared detailed remedial presentworth cost estimates.

Senior Technical Advisor at three Superfund landfills in Massachusetts, New Hampshire, and Vermont. Advised project teams on multi-media landfill investigation techniques, regulatory negotiation strategy, and landfill closure design for three Superfund landfills undergoing RI/FS, and Remedial Design/Remedial Action. Developed design for groundwater collection drain as an interim measure. Assisted in construction oversight.

Construction Engineer for soil remediation work at a gasoline station in Maine. Implemented a horizontal-well, vapor-extraction, soil-treatment system at a gasoline station on a design-and-build basis. Developed design, specified and ordered equipment, oversaw construction and startup, and performed operation and maintenance.

c. Working Knowledge of Federal, State, Local Laws, Regulations, and Guidance

Through working in NAD region over the past 18 years, has gained extensive working knowledge of federal, state and local regulations and guidance as related to cleanup of HTRW sites throughout NAD.

Working within the framework of the developing environmental cleanup and waste treatment/disposal statues and regulations, worked with regulators to develop and implement closure plans for several surface impoundments under the requirements of RCRA including MA DEP and USEPA Region I for the Galileo Electro-Optics Corporation Surface Impoundment, Sturbridge, MA, CT DEP for the Honeywell Skinner Valve Impoundment Closure in CT, ME DEP for Impoundment Closures at the GTE Facility in Standish, Maine, and the Rockwell/Maine Electronics Facility in Lisbon, Maine. Has also worked with regulators on various solid waste landfill issues, including over 20 landfills within NAD. Some of these regulatory agencies and sites include the MA DEQE/DEP for landfills in Massachusetts including Haverhill. Amesbury, Methuen, Barnstable. Leominster, and others, the VT ANR and EPA Region I for landfills in Vermont including the Parker Landfill, Lyndonville, VT, and DSI Landfill, Rockingham VT, and the Maine DEP for landfills in Berwick, Maine and the International Paper Company in Jay, Maine.

Worked with USEPA Region I and MA State regulatory representatives to develop alternate design and construction approaches for wetlands remediation and restoration at the Industri-plex Superfund Site. The alternate approaches resulted in increased protection of downstream surface water, improved approach to quality control of surface preparation and geotextile cap placement, and also cost savings. Working closely with USEPA Region I and MA DEP on the Salem Acres Superfund Site, developed a streamlined design/build approach to the remedial design/remedial action phase. Also worked with the USEPA Region I Remedial Project Manager and MA DEP Representatives to support community relations by participating in public meetings. Worked with Region II and NYDEC regulatory USEPA representatives at the GCL Tie and Treating Superfund Site to develop alternate methods for onsite management of dewatering effluent replacing more costly off-site disposal, with the added benefit of minimizing potable water demand for the site resulting in cost and resource savings.



28 March 2002

Attention: Mr. Thomas Hernon

Reference: Assignment as Project Manager for Landfill 7 Cover Improvements Project at Former

Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Project Manager for the above referenced project. In this capacity your are responsible for and have the authority necessary to ensure that the project is executed in accordance with the requirements contained in the plans and specifications. Specific responsibilities include, but are not limited to:

- Acting as the Point of Contact (POC) for Conti with the USACE COR;
- Directing and managing of all aspects of the project in compliance with contractual and technical requirements;
- Representing Conti in all dealings with all organizations involved in the project;
- Procuring and managing all subcontractor services retained by Conti;
- Approving all invoices submitted to the USACE;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Coordinating and communicating with the Project Superintendent, SSHO and CQCSM in the performance of all work related to the project.

Very truly yours

/James Stewart

Vice President of Operations



Thomas Hernon, P.E. Project Manager

Highlights of Relevant Experience

- 16 years of experience managing HTRW remediation projects
- 16 years of cost reimbursable contracting experience with USACE and other federal agencies
- Managed a residential remediation/relocation project in EPA Region II
- Managed a \$5.5M cost reimbursable Environmental Emergency Response Unit Contract task order for a mobile incineration pilot program at Denney Farm Superfund site in EPA Region VII
- 16 years of hands-on implementation of federal, state, and local environmental regulations

a. Education

City College of New York, BS, Mechanical Engineering, 1967

Professional Engineer in New York, No. 070287-1, 1992 and in New Jersey, No. GE24316, 1976

b. Experience

- (1) 02/00 to Present: Conti Environmental, Inc., South Plainfield, NJ, Project Manager. Serving as a primary point of contact, manages and executes HTRW cleanup projects in accordance with approved SOWs and work plans, and with all federal, state, and local laws and regulations. Ensures full coordination between the SHM and SSHO to make certain all site activities are performed safely. Using MIS, plans and estimates task orders, manages productivity and technical performance, and controls cost and schedule. Evaluates project cost and performance status related to all site personnel, subcontractors and suppliers. Prepares all project technical and financial reports, schedules, and invoices. Approves all material and subcontractor procurement and payments. Ensures the project's contractual QC requirements are satisfied.
- (2) 04/94 to 02/00: ENSR Corporation, Piscataway, NJ, Project Manager. Coordinated with SHM, SSHO, and field personnel to ensure safety of 15+HTRW cleanup projects. Managed all elements of a Dupont residential remediation project in Pompton Lakes, NJ. Developed underpinning design feature to allow excavation of mercury-contaminated soil to proceed without compromising residential buildings' structural integrity.

Project Manager, Armstrong World Industries, Lancaster, PA. Managed the dismantling and disposal of production equipment at this flooring and linoleum manufacturing facility. Dismantled equipment included both air handling and material handling devices. Building and support structures were demolished. Activites also included the removal of electrical, mechanical, process, and structural items within the operating facility. Major concerns during this project included fire, fugitive emissions, falling debris and tripping hazards.

Project Engineer, NAPP Chemical Co., Lodi, NJ. Peformed a forensic analysis to determine the extent of permanent versus repairable damage at this chemical manufacturing facility. This forensic study was used by the municipal government as the basis of a legal determination of building status. Also, performed an engineering survey of the existing structures to determine correct and safe procedures for the planned demolition activities. Developed the proper timing and technical sequence that was used for performing the work in a safe manner.

(3) 05/84 to 04/94: IT Corporation, Edison, NJ, Project Manager. Managed 20+ Site Superintendents, Project Engineers, estimators, SHMs, SSHOs, and field technicians on 18 HTRW cleanup projects involving RI/FS, design, groundwater treatment, excavation, decontamination and demolition, chemical laboratory pack, and transportation and disposal.

Project Manager, Denney Farm Superfund Site, Monet, MO. Under a \$5.5M cost reimbursable USEPA Environmental Emergency Response Contract, managed design, construction, logistics, and planning to transport a mobile incineration system to remote hazardous waste sites. Managed the first successful trial burn of dioxin- and PCB-contaminated soil. Generated detailed work plans, schedules, and estimates.

Project Engineer/Manager, Union Carbide, Linde Division, Linden NJ. Responsible for the design and preparation of the approved Demolition Plan for the dismantling and demolition of a Hydrogen Gas Packaging Plant. Work involved demolition activities in a potentially explosive environment within a confined space. Dismantled equipment included high pressure pumps, accumulators, and conveyors. Storage tanks and building structures were demolished. Activities also included the removal of an asbestos contaminated built-up flat roof, as well as pipe insulation removal and disposal.

Project Manager, Kin-Buc Landfill Superfund Site, Edison. Managed RD/RA to prevent the migration of PCB-contaminated sediments into Edmunds Creek, a tidally-influenced waterway adjacent to this 60-acre landfill. Oversaw sedimentm excavation, placement, and stabilization. Restored creek bed and disturbed vegetation. The design investigation included PCB delineation, tidal effects studies, threatened/endangered species protection. Developed design criteria for wetlands preservation, treatability investigations and monitoring, sequencing and scheduling, hurricane contingency planning, and noninterference with the project schedule for the larger containment and capping project. This fast-track project was completed and approved by EPA Region II and USACE

Project Manager, Norfolk Naval Station, Norfolk, VA. Managed this \$1.1M cost reimbursable task order under a U.S. Navy PCB PRAC to remediate this CERCLA site. Oversaw excavation and disposal of



2,800 cu. yards of PCB-contaminated soil, decontamination/d molition, and site restoration.

Project Manager, Naval Radio Transmission Facility, Suffolk, VA. Managed this \$1.1M U.S. Navy cost reimbursable corrective action task order at a PCB-contaminated wetlands site.

Project Engineer, Helen Kramer Landfill Superfund Site, Gloucester County, NJ. With USACE's oversight, managed installation of a 30-acre multilayer RCRA cap and detailed design of a 100-gpd groundwater treatment system.

(4) 07/72 to 05/84: Nichols Engineering and Research, Project Manager and Construction Manager. Supervised a staff of 200+ Site Superintendents, HSMs, SSHOs, and field engineers.

Managed design and construction of incineration and thermal processing systems.

c. Working Knowledge of Federal, State, Local Laws, Regulations, and Guidance

Has 16 years of experience in developing remedial work plans and submitting them for USEPA and NJDEP's review to demonstrate compliance with Administrative Consent Orders (ACOs) and ARARs. Served as Engineer-of-Record for producing Treatment Works Approval (TWA) permit applications, New Jersey's Environmental Cleanup Responsibility Act (ECRA) and ISRA closure certifications, and ACO's remedial design closure certifications.



28 March 2002

Attention: Mr. Bob Scerbo

Reference: Assignment as Chemical Quality Control Coordinator for Landfill 7 Cover Improvements Project at Former Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Chemical Quality, Control Coordinator for the above referenced project. In this capacity you are responsible for and will implement Chemical QC activities contained in the SAP prepared for this project. Specific responsibilities include, but are not limited to:

- Implementation of the SAP;
- Coordination of all Chemical data QC activities with the
- CQCSM, Project Manager and Project Superintendent as well as the USACE's QA organization;
- Supervision of all tests required by the specifications;
- Field inspections by yourself or the QC staff assigned by you;
- Maintenance of all required Quality Control Documentation, as per the specifications;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Submittal of all required QC documentation, including Daily QC Reports and QC test reports.

As Chemical Quality Control Coordinator you have authority to stop work that is not compliant with the contract.

Very truly yours

James Stewart

Vice President of Operations



Robert Scerbo Chemical Quality Control Coordinator

Highlights of Relevant Experience

- 11 years of experience meeting regulatory requirements for transport and disposal of solid and hazardous wastes for HTRW projects, including seven USACE projects
- Active member of Air and Waste Management Association
- Applies comprehensive knowledge of waste disposal regulations to sample waste streams, assess disposal facility requirements, locate appropriate disposal facilities, and monitor compliance of disposal activities
- 10 years of experience in characterizing, managing,manifesting, and transporting hazardous waste

a. Education

University of Delaware, BS, Biological Sciences (includes 20 semester hours of chemistry), 1987
Training: 16-hr DOT Training/Testing, 1998;
McCoy RCRA Seminar on Standards Applicable to Generators of Hazardous Waste, Land Disposal Regulations, Advanced RCRA Topics, and Critical Generator Issues, 1999

b. Experience

(1) 10/90 to Present: Conti Environmental, Inc., South Plainfield, NJ, Chemical Quality Control. Coordinates the review and approval procedures for all manifests. Develops and implements field sampling and testing programs, and assists in preparing SSHPs. Conducts on-site regulatory compliance monitoring programs, and completes all exception and discrepancy reports. Identifies all required permits for treatment and disposal of contaminated soil, water and air and prepares permit applications for on-site treatment facilities. Developed and implemented all elements of Conti's regulatory compliance program for the management and disposal of wastes generated from Conti-owned equipment maintenance facilities. Manages all aspects of waste characterization and disposal for 60+ ongoing HTRW projects, including 16 Superfund sites. Serves as single source for all regulatory matters. Manages the profiling, manifesting, and tracking of wastes. Completes manifest requirements in exact accordance with SOW, Conti's approved SSHP, Field Sampling Plan, and all federal, state, and local laws and regulations. Coordinates the review and approval procedures for all manifests. Conducts on-site regulatory compliance monitoring programs, and completes all exception and discrepancy reports. Identifies all required permits for treatment and disposal of contaminated soil, water and air and prepares permit applications for on-site treatment facilities. Developed and implemented all elements of Conti's regulatory compliance program for the management and disposal of wastes generated from Conti-owned equipment maintenance facilities.

(2) 01/89 to 10/90: NUS Corporation, Edison, NJ, Environmental. Scientist. Conducted site investigations at 25+ HTRW sites, 6 as Lead Investigator, under an EPA cost reimbursable FIT contract. Provided instruction on appropriate EPA sampling and documentation protocols.

CQCC, GGM Building Demolition, Welsbach Superfund Site (FFP, 07/00 to present). Currently serving as CQCC for this project, which is being performed under Conti's existing PRAC with the KC District for USEPA Region II. The task order (TO) includes the demolition of the abandoned GGM plant contaminated with thorium and uranium residue and the off-site disposal of radiologically contaminated waste, mixed waste and non-hazardous debris. Mr. Scerbo coordinated the development of a detailed Sampling and Analysis Plan that has both radiological and chemical components and includes field screening for radionuclides, air sampling for radiological and chemical compounds, waste characterization sampling, analysis of water subject to pretreatment discharge requirements, and soil sampling.

CQCC, Moyer Landfill Superfund Site (CR and FFP, 04/93 to 07/98). Managed the development of the Chemical Data Quality Management Plan, which included field screening, sampling and sample management procedures for a range of activities, specifically: baseline landfill gas, leachate monitoring, perimeter air monitoring during construction, drummed material characterization and computability, and soil borrow source testing. Provided continuous oversight of sampling for a two-year post-construction monitoring period. All data was developed and presented in accordance with USACE protocols.

CQCC, Caldwell Trucking Superfund Site (FFP, 06/93 to 08/94). Reviewed RCRA regulations and developed and obtained EPA Region II and NJDEP's approval for using a rigorous soil sampling and classification plan to more accurately characterize this Superfund site's VOC-contaminated soil. Coordinated complex in situ field sampling program to characterize soil contaminated with VOCs, metals, and PCBs. Managed all of the project's data acquisition, analysis and management issues, resulting in the optimal disposal of five waste streams at four different waste disposal facilities. The in situ sampling program reduced the volume of waste requiring incineration by 60%, with a cost savings to the client of over \$900,000.

CQCC, Galaxy/Spectron Superfund Site (FFP. 06/98 to 05/99). Served as CQCC for the \$2.8M remediation of VOC-contaminated soil and groundwater and a complex riverine restoration at this Superfund site. Developed and implemented the Sampling and Analysis Plan that included surface water discharge monitoring in compliance with



Maryland Department of the Environment Temporary Discharge Authorization, and perimeter air sampling for VOCs utilizing Summa Canisters and TO-14 analysis.

CQCC, Former L.E.C. Site (FFP. 09/96 to 09/97) Implemented a field screening program which used Draeger tubes and OVM measurements to screen excavated soil for selection of the appropriate treatment method. Developed and implemented air monitoring program, in compliance with a NJDEP air permit, for emissions from air pollution control (APC) system used to treat volatile organic compounds released during treatment process.

Earthwork Low-Permeability Soil (Included in Closure Report Clearing and Grubbing (Included in Closure Report) Field Activities Subgrade: 1. Remove Aphalt 2. Disposal of Asphalt 3. Remove unsatisfactory material from upper 6 inches 4. Consolidate or dispose of unsatisfactory material 5. Establish subgrade elevation 6. Cut and fill landfill area per survey 7. Compact subgrade 6. Peter fill as necessary to meet established elevations 9. Compact subgrade alongs for cover soil 10. Pressure subgrade alongs for cover soil 11. Survey and prepare final subgrade topographic map Identify and mark resources not to be disturbed: Install recision and sedimentation control devices. Implement and martial water and air resources protection measures. Implement waste handling and disposal methods 5. Post Construction Cleanup 6. Restoration of Landscape damage. Restoration of Landscape damage. Retiremence of profilerion control fleatilies. Removal of Erosion and control measures. Surveyor Qualifications Cocumentation wiritying accuracy of surveying work Certificates of Elevations and locations Certificates of Elevations and locations Field Data Initial topographic Map(After cut &fill is complete) Tipographic Map after placement of low permeability Excavate the ground surrounding each well Pull out and dispose the riser and screen Remove all remaining material and dispose Place the cementhembrane grout Well Decommissioning Report Physical Characteristics, Field Density, Moisture Content membality, test results Borrow source assossment report Disposal Facility(or asphali) Certificate of Disposal (or asphali) Soil Erosion and Sediment Control Plan Preconstruction Survey Clear and grub work areas Transport and Dispose of material on-site Install temporary construction facilities Implement traffic control plan Install staging and decontamination facilities Restoration of staging areas As-built Topographic Map(final grades) Benchmarks Verify locations of site references and survey control ints prior to starting work Install elevation benchmarks and horizantal control interwer Soal (low permeability soal): Place cover soal Compact cover soil Perform density control and permeability testing Perform density control and permeability testing Survey and prepare final cover soil grade topo map Mobilization/Demobilization Plan Traffic Control and Transportation Plan Install temporary site utilities Install and hookup eclectrical service ation and depth of fill Install permanent elevation benchmarks ocate and layout all site features to be constructed Provide grade and offset stakes to control the LANDFILL 7 COVER IMPROVEMENTS DEFINABLE FEATURES OF WORK TRACKING LOG AND SUMMARY TABLE unnunkunnkunnuk Initial Phase Follow-up Phase Scheduled Status Scheduled Status

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REC 3D OF PREPARATORY AND INITA L INSPECTIONS

WAS MATL&/OR	EQUIPMENT	PHYSICALLY INSPECTED ?					
PERSONS	ATTENDING	INSP					ACK PREP/INIT INSP'S
r NOS	ОС						TOR TO TRA
REPORT NOS	ÖA						SED BY THE CONTRACTOR TO OR COMMENTS AS REQUIRED
DEFINABLE FEATURE OF WORK	(DESCRIBE)						NOTE:THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK PREP/INIT INSP'S ATTACH ADDITIONAL RESULTS OR COMMENTS AS REQUIRED
TYPE OF	INSP						326
DATEOF	INSP				·		NAD FORM 826 22 JULY 86

PREPARATORY PHASE CHECKLIST

Contract No.:		Date:	
Definable Feature:		Spec Section:	
Government Rep Notified:		_ Hours in Advance	Yes No
I. Personnel Present			
Name	Position	Con	npany/Government
1			*
3			
5			
6			
(List additional personnel or	n reverse side)		
II. Submittals			
Review submittals and/or submittal log 4 Yes No		omittals been approved	?
If no, what items have not been submitted	?		
a b c			
2. Are all materials on hand? Yes	No		
If no, what items are missing?			
a b c			
3. Check approved submittals against deliv	vered material. (T	his should be done as r	naterial arrives).
Comments:			

III. Material Storage		
Are materials stored properly?	Yes	_ No
If no, what action is taken?		
IV. Specifications		
Review each paragraph of specifications.		
Discuss procedure for accomplishing the work.		
3. Clarify any differences.		
✓ V. Preliminary Work and Permits		
Ensure preliminary work is correct and permits are on file.		
If not, what action is taken?		
VI. Testing		
Identify test to be performed, frequency, and by whom.		
2. When required?		
3. Where required?		
4. Review Testing Plan.		
5. Has test facilities been approved?		

2. Activity Hazard Analysis approved?	Yes	No
/III. Corps of Engineers comments during meeting.		
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VII. Safety

INITIAL PHASE CHECKLIST

Contract No.:		Date:		
Definable Feature:		_		
Government Rep Notified:	Н	ours in Advance	Yes	No
I. Personnel Present				
Name	Position	Co	mpany/Gov	ernment
1				
1 2 3				
3		,		
<i>c</i>				
6				
(List additional person	nnel on reverse side)			
II. Identify full compliance with proce and submittals. Comments:				
· · ·				
III. Preliminary Work. Ensure prelimi				
IV. Establish Level of Workmanship.				
 Where is work located? Is a sample panel required? Will the initial work be considered (if yes, maintain in present condition) 			Yes	No No No
V. Resolve any differences.				
Comments:				

eview job conditions using				
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FOLLOW-UP PHASE CHECKLIST

Contract No.:		Date:	
Definable Feature:			
Government Rep Notified:		_Hours in Advance	Yes No
I. Personnel Present			
Name	Position	С	ompany/Government
1			
1 2 3 4 5 6			
5	-		
6			
(List additional persor	nnel on reverse side)		
II. Identify compliance with proce	dures identified at prep	paratory and initial co	ntrol phases
Comments:			
III. Verification of Level of Workm	anship.		
Where is work located?			
2. Is work consistent with initial c			Yes No
Comments:			
iV. Document Differences Identifi Comments:	ed (if any) and Describ	e Resolution	
	-		
V. Check Safety.			
V. Check Safety. Comments:			
·			

TO BE PROVIDED AFTER LABORATORIES ARE CONTRACTED

CQC TEST REPORT LIST

DATE:			REMARKS	•			- Walter and the second	MENTS AS RECLIBED
	CONTRACT #:	LOCATION:	RESULTS					OC TESTING PROVIDE ATTACH
· · · · · · · · · · · · · · · · · · ·			DATE PERFORMED					TOR TO TRACK (
SHOF			TYPE OF TEST					NOTE: THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK COC TESTING, PROVIDE ATTACHMENTS AS REQUIRED
CQC REPORT#	CONTRACTOR:	PROJECT TITLE:	SPEC REF OR DWG#					NOTE: THIS FORM SH

TESTING PLAN LOG LANDFILL 7 COVER IMPROVEMENTS

Material	Test	Test Method	Frequency
Common Borrow Fill	Atterberg Limits	ASTM D-4318	1 test per 1,000 yd³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Particle Size Analysis	ASTM D-422	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	USCS Classification	ASTM D-2487	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Moisture Content	ASTM D-2216	1 test per 1,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Chemical Testing for Contamination	EPA SW-846	1 sample per source; a composite of 5 subsamples.
Low Permeability	Atterberg Limits	ASTM D-4318	1 test per 1,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
Soil Layer	Compaction Characteristics of Soil	ASTM D-698	1 set of tests per 5,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Density of Soil In-Place by Nuclear Methods	ASTM D-2922	9 tests per acre per lift.
	Rapid Moisture Content	ASTM D-3017	9 tests per acre per lift.
	Hydraulic Conductivity Testing	ASTM D-5084	1 test per acre per lift.
	Hydraulic Conductivity Testing	ASTM D-5084	1 test per 5,000 yd³ of borrow, minimum 2 tests per source. Additional test when material characteristics change.
	Particle Size Analysis	ASTM D-422 and ASTM-D- 1140	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Moisture Content	ASTM D-2216	1 test per 1,000 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Chemical Testing for Contamination	EPA SW-846	1 sample per source; a composite of 5 subsamples.
Topsoil	Organic Content	AASHTO – T194	1 test per 20,000 yd ³ source of borrow. Additional tests when material characteristics change.
	Gradation	ASTM D-422	1 test per 2,500 yd ³ of borrow, minimum of 2 tests per source. Additional tests when material characteristics change.
	Chemical Testing for Contamination	EPA SW-846	1 sample per source; a composite of 5 subsamples.

(a) Samples will be composite samples, collected from at least 10 uniformly spaced locations in the borrow pit(s).

Samples will be collected from a depth of 1 to 2 ft below existing grade before borrow operations begin.

Contractor will composite soil from 10 locations into one sample, which will then be sent to the accepted testing laboratory for analysis. Analytical results will be reported within 20 days of sample receipt by the laboratory.

NOTE: ASTM = American Society of Testing and Materials.

USCS = Unified Soil Classification System.

EPA = U.S. Environmental Protection Agency.

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SIES			DATE					O TRACK
LIST OF OUTSTANDING DEFICIENCIES		CQC REPORT #:	DESCRIPTION OF DEFICIENCY					NOTE: THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK OUTSTANDING CONSTRUCTION DEFICIENCIES
OF OUTSTANE	TITLE:	ÿ	LOCATION ON PROJECT					IIS FORM SHALL BE USE
LIST (PROJECT TITLE:	LOCATION:	SPEC REF OR DWG #					NOTE: TH

Conti Environmental, Inc.

DAILY QUALITY CONTROL REPORT

					-		
					-		
Daily Repo Contract N					Date:		
Project Title Weather:			Precipitation:	Temp:		_Min	Max
1. Contract	/Subcontrac	ctors and Ar	ea of Respons			_	
Number:	Trade:	Hours:	Employer	Location	/Description	n of Work:	
, . \							
2. Operating	g Plant or E	quipment. (I	Not hand tools)			
Plant/Eq	uipment		ite of Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair
	_						

subcontractors by letter in table above).	description of work performed by prime and/or
	<u> </u>
•	
Results of control activities: (Indicate whether F a P or I meeting is conducted, complete attachr analysis system is used, identify work by use or	
Test performed as required by plans and/or spe	ecifications:
•	
Material Descived:	
Material Received:	

	(b) Spec/Plan Reference	By Whom	(d) Action
a) Submittal No.	(5) 55 551 1511 1 15101 51105	2) 11110111	(3) /(01011
Officity available of	ativities instruction action takens		
o. Offsite surveillance a	ctivities, including action taken:		
			ون .
3. Job Safety: (Report v	violations; corrective instructions giver	n; corrective actions tak	en).
	ons received or given. Conflict(s) in Pl	ans and/or Specification	าร).
10. Remarks: (Instructio			
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10. Remarks: (Instructio			
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		this report is complete	and correct, and
Contractor's Verification	: On behalf of the Contractor, I certify nent used and work performed during	this reporting period are	e in compliance
Contractor's Verification	: On behalf of the Contractor, I certify	this reporting period are	e in compliance
Contractor's Verification	: On behalf of the Contractor, I certify nent used and work performed during	this reporting period are	e in compliance
Contractor's Verification	: On behalf of the Contractor, I certify nent used and work performed during	this reporting period are	e in compliance
Contractor's Verification	: On behalf of the Contractor, I certify nent used and work performed during	this reporting period are	e in compliance

PERMANENT MATERIALS REPORT

Project:					
Location:					
Materials:					
-					
Supplier:					
Subcontracto					
Freight Line:					
Damage Rep	ort:				
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Inspected By	:				
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			Quality Contro	l Systems Manage	er

Conti Environmental, Inc.

		report No.	
••		Date	
	TRIP REPORT		
	COMPONENT		
	VENDOR SPEC. REF.		
PURPOSE OF TRIP			
CONTACT			
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SUMMARY			
	Quality Control S	Systoms Manage	-

DEFICIENCY REPORT NO.

Contractor:	
Date:	Contract No.:
1 6	
Reference Specifications Paragraph:	
Reference Contract Drawing Sheet No.:	
Deficiency:	
Corrective Action:	
`	
Acknowledged:	
Area Representative & Date	Corps of Engineers Field Representative

CONCRETE SUMMARY

Report I	Vo.	 		
Date				

Test	Date	Class	Field Spec	7 Day	28 Day	Other	Location & Remarks
							,
`\							
	_						

DENSITY TESTING SUMMARY LOG

DFOW TESTED

DATE	TESTED BY	

	_			_	 		 	_	_	 _
Remarks						:				
Passed Failed										
Spec. Reg.										
Soil Type										
Moisture Compact %										
Moisture %										
Dry Density										
O.M.C. %										
Max. Dry O.M.C. Density %										
Depth Elevation										•
Test Type										

CONTI ENVIRONMENTAL, INC.

NON-COMPLIANCE IDENTIFICATION / CORRECTIVE ACTION REPORT

Report No					
Identification of Unsatisfactory/Non-complia	anagement Staff ed: / / ; : AM PM anagement Staff ed: / / ; : AM PM aff notified: : Title: : Title:				
Condition is: Unsatisfactory Non-complian				erm)	
Condition identified by (name & title):	(0	upp.	priato to	,	
		-		AM PM	
4. DFOW/WBS ID affected:			•		
5. Description of condition:					
·					
			_		
Notification of Client and Project Manageme	nt Stan				
6. Name of client representative notified:				111 511	-
		<u>;</u>		AM PM	
8. Name(s) of Project Management Staff notifie					
8A. Name: : : : : : : : : : : : : : : : : : :	Title:	:			
0 O N	i ilie.	•			
8C. Name: :	Title.	·			
Dring and Corrective Action					
Proposed Corrective Action					
Description of Proposed Corrective Action:					
<u> </u>		_			
		-			
Client Approval of Proposed Corrective Acti	on (com	nlete	if app	roval required	١
10. The proposed corrective action(s) have bee	-			•	-
					•
9,1					
Verification of Implementation of Proposed (Correctiv	ve Ac	tion		
11. The undersigned has verified that the Corre				ed above	
have been implemented and the Unstatisfactory					
exists. Verfied by:					
CQCSM					
Closeout of Unsatisfactory/Non-comformant					
12. The conditions necessitating this report have		atisfa	ctorily i	resolved and	
the status of this report is considered as closed	out.				
by: on:_					
CQCSM					

Non-conformance DFOW Date Corrected Inspected/Verific Corrected Inspected	
Report # Involved Identified Corrected Inspected/Verified	Date
	d by Verifie
	, d

REMARKS DATE NOTE: THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK OUTSTANDING CONSTRUCTION DEFICIENCIES DATE CORRECTED OF DATE TO BE CORRECTED LIST OF OUTSTANDING DEFI CONTRACTOR: CONTRACT #: DESCRIPTION OF DEFICIENCY DATE FOUND CQC REPORT# LOCATION ON PROJECT PROJECT TITLE:_ SPEC REF OR DWG# LOCATION: