

Permit No.	Scan Date	DIN
5504	March 14, 2011	13229

North Carolina
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

June 3, 2002

Mr. Rich Nolan, Engineer for BFI/Allied Waste, Inc.
d.b.a. Lake Norman Landfill, Inc.
P.O. Box 219
Pineville, North Carolina 28138

Re: Lake Norman C&D Landfill - Subcell 1B, Phase 2 Certification
Solid Waste Permit No. 55-04

Dear Mr. Watson:

Enclosed please find a modified solid waste Permit to Operate and the accompanying conditions for the subject facility, issued in accordance with N.C.G.S. 130A-294 and the NC Solid Waste Management Rules. The modified permit approves waste placement in the area identified as Subcell 1B, Phase 2 (approximately 5.9 acres) of the approved plan in addition to the previously approved Subcell 1B, Phase 1 (approximately 1.4 acres) and Subcell 1A. Included in this modification is approval of the adjusted waste limits boundary along the northern edge of Subcell 1A as identified in the letter submitted by ESP Associates, P.A. dated 17 January 2002. This permit is for a five year period from the original issue date and is subject to review on or before 25 March 2004 or until the approved capacity of the certified area is exhausted.

Please review the conditions of permit carefully. If you have any questions or comments about the enclosed permit, please feel free to contact me at (336) 771-4608 ext. 204 or the Solid Waste Specialist for your area, Rick Doby, at (704) 663-1699.

Sincerely,


Timothy A. Jewett
Western Area Engineer
Solid Waste Section

cc: Jim Coffey, SWS
Brent Rockett, SWS
Rick Doby, SWS
Dave Wasiela, ESP Associates, P.A.
Raleigh Central Files: Lake Norman C&D Landfill, Lincoln County - Permit No. 55-04

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North Carolina
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor
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PERMIT NO. 55-04
ISSUED 25 MARCH 1999
MODIFIED 21 NOVEMBER 2000
MODIFIED 23 APRIL 2002 (PTO Subcell 1B, Phase 1)
MODIFIED 31 MAY 2002 (PTO Subcell 1B, Phase 2)

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

1646 MAIL SERVICE CENTER RALEIGH, NC 27699-1646

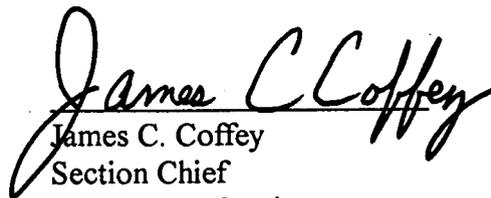
SOLID WASTE PERMIT

LAKE NORMAN LANDFILL, INC.

is hereby issued a PERMIT TO OPERATE a

CONSTRUCTION AND DEMOLITION LANDFILL
SUBCELL 1B, Phase 1 and 2 (7.3 acre area)

located on Quarry Lane off NC HWY 16 in Lincoln County, North Carolina based on the site plan submitted to the Section dated February 1998 and referenced as item #1 in the approved documents; in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The facility is located and described by the legal description of the site on the attached sheet.


James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us/

PERMIT NO. 55-04
ISSUED 25 MARCH 1999
MODIFIED 21 NOVEMBER 2000
MODIFIED 23 APRIL 2002 (PTO Subcell 1B, Phase 1)
MODIFIED 31 MAY 2002 (PTO Subcell 1B, Phase 2)

LAKE NORMAN LANDFILL

**SOLID WASTE PERMIT
CONSTRUCTION AND DEMOLITION LANDFILL**

CONDITIONS OF PERMIT:

General:

1. This permit shall not be effective unless the certified copy is filed in the Register of Deeds office and indexed in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy of the permit, affixed with the Register's seal and the date, book, and page number of recording shall be returned to the Division of Waste Management (the Division).
2. When this property is sold, leased, transferred or conveyed, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as a sanitary landfill.
3. This permit is for a period of five years and is subject to review on or before 25 March 2004, as per 15A NCAC 13B .0201(c), according to the issuance date of the permit. Modifications to the facility may be required in accordance with the rules in effect at the time of review. This facility may receive solid waste that is generated within a service area consisting of North Carolina and South Carolina.
4. The approved plan for this facility is described in Attachment 1, "List of Documents for Approved Plan". Where discrepancies exist, the most recent submittal and these Conditions shall govern. Some components of the approved plan are reiterated in these Conditions.
5. This permit is not transferable.
6. A copy of this permit and the approved plan shall be maintained at the facility.
7. The owner/operator is responsible for obtaining any and all permits and approvals necessary for the development of this project including approval from appropriate agencies for a General or Individual NPDES Stormwater Discharge Permit.
8. The applicant, prior to operation of the facility, shall comply with all applicable lawfully adopted local ordinances.

Construction and Operation:

9. This permit is for the development of the Lake Norman Construction and Demolition Landfill, Cells 1A, 1B, and 1C within the approved facility description, in accordance with the approved plan. Initial development shall begin with Cell 1A.
10. This solid waste management facility is permitted to receive the following waste types:
 - a. Land-clearing debris as defined in G.S. 130A-290, specifically, solid waste that is generated solely from land-clearing activities, such as stumps, trees, etc.;
 - b. Inert debris defined as solid waste which consists solely of material that is virtually inert, such as brick, concrete, rock and uncontaminated soil;
 - c. Asphalt in accordance with G.S. 130A-294(m);
 - d. Construction and demolition debris defined as solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures;

Note: Yard trash defined as solid waste consisting solely of vegetative matter resulting from landscaping maintenance (see G.S. 130A-290) is banned from disposal in this facility as per NC General Statutes.

11. All sedimentation and erosion control measures will be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4. Native vegetation shall be established on the completed landfill.
12. Operation of the facility shall occur in accordance with the NC Solid Waste Management Rules 15A NCAC 13B .0505, "Operational Requirements for Sanitary Landfills", the approved Operations Plan, and the following specific conditions:

Waste Acceptance and Disposal

- a. The facility shall accept only those solid wastes which it is permitted to receive.
- b. No municipal solid waste, hazardous waste, or liquid waste shall be accepted for disposal.
- c. Waste shall be restricted to the smallest area feasible and compacted as densely as practical into cells.
- d. The permittee shall implement a program at the facility for detecting and preventing the disposal of unacceptable wastes. The program shall include, at a minimum:
 - i. Random inspections of incoming loads or other comparable procedures;
 - ii. Record keeping which documents these inspections;
 - iii. Training of personnel to recognize hazardous, liquid, and other unauthorized waste types;

- iv. Development of a contingency plan to properly manage any identified hazardous or problem wastes; The plan must address identification, removal, storage, and final disposition of these wastes.

Cover Material Requirements

- e. Operational soil cover of at least six inches shall be placed at least once per week or when the active area reaches 1/2 acre in size or more often as necessitated by the nature of the waste so as to prevent the site from becoming a visual nuisance and to prevent fire, windblown materials, vectors or water infiltration.
- f. Areas which will not have additional waste placed on them for 12 months or more, but where final termination of operations has not occurred, shall be covered with a minimum of one foot of soil cover.
- g. After final termination of disposal operations at the site, or major part thereof, or upon revocation of a permit, the final cover system shall be installed.

Access and Safety

- h. The facility shall be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the Division to prevent unauthorized entry.
- i. An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.
- j. The access road to the site shall be of all-weather construction and maintained in good condition.
- k. Dust control measures shall be implemented when necessary.
- l. Signs providing information on dumping procedures, the hours of operation, the permit number, the emergency contact, and other pertinent information shall be posted at the site entrance.
- m. Signs shall be posted stating that no MSW, hazardous waste or liquid waste can be received.
- n. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
- o. The removal of solid waste from the facility is prohibited unless the owner/operator approves and the removal is not performed on the working face.
- p. Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein, except fiber drums containing asbestos.
- q. Open burning of solid waste is prohibited.
- r. The concentration of explosive gases generated at the facility shall not exceed:
 - i. twenty-five percent of the limit for gases in site structures (excluding gas control or recovery system components); and
 - ii. the lower explosive limit for gases at the facility boundary.

Erosion and Sedimentation Control

- s. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site.
- t. Adequate sedimentation and erosion control measures shall be practiced to prevent excessive on-site erosion.
- u. Provisions for a vegetative ground cover sufficient to restrain erosion must be accomplished within 30 working days or 120 calendar days upon completion of any phase of C&D landfill development.

Drainage Control and Water Protection Requirements

- v. Surface water shall be diverted from the operational area.
 - w. Surface water shall not be impounded over or in waste.
 - x. A separation distance of at least four feet shall be maintained between waste and the ground-water table.
 - y. Solid waste shall not be disposed of in water.
 - z. Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to discharge of leachate to surface waters.
13. All pertinent landfill operating personnel will receive training and supervision necessary to carry out their duties and operate this landfill in a safe manner.
14. A closure and post-closure plan must be submitted for approval at least 90 days prior to closure or partial closure of any landfill unit. The plan must include all steps and measures necessary to close and maintain the facility in accordance with all rules in effect at that time. At a minimum, the plan shall address the following:
- a. Design of a final cover system;
 - b. Construction and maintenance/operation of the final cover system and erosion control structures;
 - c. Surface water, ground water, and explosive gas monitoring.

Monitoring and Reporting:

15. Ground water quality at this facility is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B. Water quality monitoring for the C&D landfill shall occur according to the following conditions:
- a. The permittee shall sample the monitoring wells semi-annually or as directed by the Division Hydrogeologist.
 - b. Monitoring well design and construction shall conform to the specifications outlined in Attachment 2, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities."

- c. Sampling equipment, procedures, and parameters shall conform to specifications outlined in the above-referenced guidance document, (Attachment 2), or the current guidelines established by the Division at the time of sampling.
 - d. A total of four monitoring well locations as illustrated in the approved plans shall be established to monitor the facility.
 - e. A geologist shall be in the field to supervise well installation. The exact locations, screened intervals, and nesting of the wells shall be established after consultation with the Division Hydrogeologist at the time of well installation.
 - f. Prior to the acceptance of any waste at the facility, a baseline sampling event shall be completed. The results of this sampling event shall be submitted to the Division Hydrogeologist in a timely manner (see Construction and Operation Condition 4 (d)).
 - g. Well completion records and boring logs shall be submitted to The Division at the same time as the results of the initial sampling event or within 30 days upon completion of any new wells.
 - h. In order to determine ground-water flow directions and rates, each monitoring well shall be surveyed, and hydraulic conductivity values and effective porosity values shall be established for the screened intervals for each monitoring well.
 - i. A readily accessible unobstructed path shall be initially cleared and maintained so that four-wheel drive vehicles may access the monitoring wells at all times.
16. The permittee shall establish two locations for surface water sampling. Surface water shall be sampled and analyzed semi-annually according to the protocol and parameters required by the Division at the time of sampling.
 17. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the analytical data for each water quality monitoring sampling event (15.a, 15.h. & 16.) shall be submitted to the Division in a timely manner.
 18. Explosive gas monitoring shall be performed as needed to ensure compliance with the standards in Rule .0503 (2)(a).
 19. The permittee shall maintain a record of the amount of solid waste (in tons) received at the facility, compiled on a monthly basis. Scales shall be used to weigh the amount of waste received.
 20. On or before 01 August (or an earlier date as requested by the Division) of each year, the permittee shall report the amount of waste received at this facility and disposed of in the landfill to the Division and to all counties from which waste was accepted, on forms prescribed by the Division. This report shall include the following information:
 - a. The reporting period shall be for the previous year, beginning 01 July and ending on 30 June;
 - b. The amount of waste received and landfilled in tons, compiled on a monthly basis,

- according to Condition 5 described above; and
 - c. Documentation that a copy of the report has been forwarded to all counties from which waste was accepted.

- 21. All pertinent records and reports shall be maintained on site and made available to the Division upon request.

PERMIT NO. 55-04
ISSUED 25 MARCH 1999
MODIFIED 21 NOVEMBER 2000
MODIFIED 23 APRIL 2002 (PTO Subcell 1B, Phase 1)
MODIFIED 31 MAY 2002 (PTO Subcell 1B, Phase 2)

ATTACHMENT 1

List of Documents for the Approved Plan

The following documents are incorporated into the approved plan for Permit No. 57-04:

1. Combination Site Plan and Construction Plan Application; Submitted by S&ME, Inc. on 20 February 1998.
2. Official Zoning Documentation and Lincoln County Permitting Status submitted 14 July 1998 by S&ME, Inc.
3. Response to Hydrogeologic Technical review letter, submitted 4 August 1998 by S&ME, Inc.
4. Revised Grading Plan and Cross Sections depicting Phase 1A, 1B, and 1C of the landfill; Submitted 10 August 1998 by S&ME, Inc.
5. Legal Description of the Facility.
6. Application for a Permit to Operate dated 25 February 1999 from S&ME, Inc. certifying an initial 5 acre portion of Subcell 1C.
7. Revised Construction Plan, Operation Plan, and Property Deed submitted 9 March 1999 by S&ME, Inc. renaming the subcells, altering the order of operations, and certifying a revised 3 acre portion of Subcell 1A.
8. Addendum to the Application for a Permit to Operate dated 31 March 1999 and submitted by S&ME, Inc. on behalf of Lake Norman Landfill certifying an additional one acre portion of Subcell 1A to be included with the previously certified 3 acres.
9. Letter submitted by S&ME, Inc. on behalf of Lake Norman Landfill dated 30 April 1999 indicating revised base grades in the certified areas of Subcell 1A due to rock encountered during construction. Base grades were raised four feet to provide separation to rock.
10. Construction Quality Assurance Submittal dated 24 October 2000 and submitted by ESP Associates, P.A. on behalf of Lake Norman Landfill certifying the remaining 5.8 acres of Subcell 1A as being constructed according to the approved plans. Two small areas of subgrade along the eastern toe of slope were adjusted due to rock encountered during excavation.

ATTACHMENT 1

List of Documents for the Approved Plan (cont'd)

11. Minor Permit Modification request dated 17 January 2002 and submitted by ESP Associates, P.A. on behalf of Lake Norman C&D Landfill adjusting the waste limit boundary along the northern edge of Subcell 1A due to a surveying error during construction. Since neither the required 200 foot property line buffer, floodplain restriction, or vertical separation to seasonal high groundwater is affected, the request to modify the waste boundary is approved.
12. Construction Quality Assurance Submittal dated 11 April 2002 and submitted by ESP Associates, P.A. on behalf of Lake Norman Landfill certifying approximately 1.4 acres of Subcell 1B (designated as Subcell 1B, Phase 1) as being constructed according to the approved plans. Constructed base grades were slightly higher in some areas of this phase to improve stormwater drainage out of Subcell 1B and to provide separation to a small area of rock encountered along the boundary between 1A and 1B during excavation.
13. Construction Quality Assurance Submittal dated 21 May 2002 and submitted by ESP Associates, P.A. on behalf of Lake Norman Landfill certifying the remaining approximately 5.9 acres of Subcell 1B (designated as Subcell 1B, Phase 2) as being constructed according to the approved plans. Constructed base grades were slightly higher in some areas of this phase to improve stormwater drainage out of Subcell 1B and to provide separation to an area of rock encountered along the northwestern boundary near the Subcell 1A and 1B interface.

Lake Norman Landfill, Inc.

C&D Landfill

Subcell 1B, Phase 2

5/31/02

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MAY 22 2002

Winston-Salem
Regional Office

**LAKE NORMAN LANDFILL, INC.
C&D LANDFILL
SUBCELL 1B, PHASE 2**

**APPLICATION FOR PERMIT TO OPERATE
A C&D LANDFILL**

**CONSTRUCTION QUALITY ASSURANCE (CQA)
SUBMITTAL**

THE COUNTY OF LINCOLN
NORTH CAROLINA
ESP JOB NO. QC12

APPROVED
DIVISION OF SOLID WASTE MANAGEMENT
DATE 5/31/2002 BY JBJ
PERMIT # 55-04
RALEIGH CENTRAL FILE COPY

Prepared For:

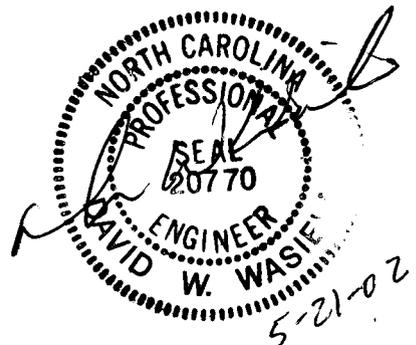
**LAKE NORMAN LANDFILL, INC.
LINCOLN COUNTY, NORTH CAROLINA**

Prepared By:



ESP ASSOCIATES, P.A.
engineering • surveying • planning

May 2002





ESP ASSOCIATES, P.A.
engineering • surveying • planning

May 21, 2002

State of North Carolina
Department of Environment and Natural Resources
Division of Waste Management
585 Waughtown Street
Winston-Salem, North Carolina 27107-2241

ATTENTION: Mr. Tim Jewett – Western Area Engineer

Reference: **CONSTRUCTION QUALITY ASSURANCE (CQA) SUBMITTAL
APPLICATION FOR PERMIT TO OPERATE**
Lake Norman Landfill, Inc. C&D Landfill, Subcell 1B, Phase 2
Solid Waste Permit No. 55-04
ESP Job No. QC12

Mr. Jewett:

ESP Associates, P.A. (ESP) has completed the necessary construction quality assurance (CQA) monitoring, testing and inspection services for the construction of the referenced project. Attached with this letter is the CQA submittal for the referenced project serving as the Application for Permit to Operate a C&D Landfill.

The Division of Waste Management most recently issued a permit to operate Subcell 1B, Phase 1 (Permit No. 55-04) on April 23, 2002. Construction of Subcell 1B, Phase 2 is for the remainder of the Subcell 2 footprint. In preparation for construction, ESP produced construction level grading plans for Subcell 1B. During this process, the permit drawings were modified including alignment of the Subcell 1B limits and raising floor grades. Both of these modifications were made to improve stormwater drainage out of and away from Subcell 1B and to also enhance operations. The Construction Grading Plan is included in the Appendix of this report for reference. This plan used for construction does not propose grading to occur lower than those grades permitted nor does it propose construction of the Subcell outside of the previously permitted waste limits.

This CQA certification and application for permit to operate addresses the construction of approximately 5.9 acres of the remainder of Subcell 1B (Following Subcell 1B, Phase 1 Construction). For consistency with earlier permitting of operational areas, this portion of the landfill will be called Subcell 1B, Phase 2.

The attached submittal contains CQA activities for site preparation, proofrolling of excavated and foundation areas, and as-built conditions for construction of Subcell 1B, Phase 2. Necessary supporting information including the final as-built drawing is attached with this submittal in the Appendix.

Construction of the approximately 5.9-acre Lake Norman Landfill, Inc., Subcell 1B, Phase 2 was performed by Earnhart Grading, Inc. (Huntersville, North Carolina) under the monitoring and observation of ESP personnel. The professional seal of David W. Wasiela, P.E. is affixed to this letter in order to certify that Subcell 1B, Phase 2 of Lake Norman Landfill, Inc. C&D Landfill has been constructed in general accordance with the permitted plans and specifications (prepared by S&ME, Inc., Charlotte, North Carolina) and drawings attached herein. The final grades achieved for Subcell 1B, Phase 2 maintain in excess of a 4-foot vertical separation above the permitted potentiometric surface and comply with Division of Solid Waste Management Rules and permit conditions.

If you should have any questions or require additional information upon reviewing this submittal, please contact us.

Sincerely,

ESP Associates, P.A.


David W. Wasiela, P.E.
Project Engineer
Landfill Services Department Manager
NC Registration No. 20770



Cc: Mr. Tim Jewett – Division of Waste Management (4)
Mr. Rich Nolan – Lake Norman Landfill, Inc. (2)

Attachments: CQA Report

SITE PREPARATION

Downgradient erosion and sedimentation control devices including a sediment basin and diversion ditches were installed during the construction of Subcell 1A, Phases 1 and 2 of the C&D landfill facility. Diversion ditches/dikes and sediment basins were constructed in general accordance with the approved plans in order to convey stormwater runoff to the appropriate sediment control devices. All erosion and sedimentation control devices were inspected by ESP personnel throughout the construction process and were found to be in appropriate condition and functioning properly.

EXCAVATION AND ROCK

In order to reach the approximate proposed grades for the Subcell 1B, Phase 2, approximately 60,000 cubic yards of soil were excavated. Placement of structural fill was not necessary to complete this project. Excavation was performed using trackhoes loading off-road articulating dump trucks that transported the soils to designated stockpile areas on-site. For this phase of the project, all soils excavated for Subcell 1B, Phase 2 were placed as cover for Subcell 1A or transported to the North Stockpile Area.

Rock was encountered within the Subcell 1B, Phase 2 footprint along the northwestern boundary near the Subcells 1A and 1B interface within 1 foot of proposed final grades. When the rock was encountered, the location of the rock was surveyed for horizontal and vertical location by F. Donald Lawrence & Associates, P.A. A minimum of four (4) feet of cover soil was placed over the exposed rock area under the monitoring of ESP personnel. The thickness of cover soils placed above the rock was then verified by survey methods by F. Donald Lawrence & Associates, P.A. Reference the "As-Built Survey Drawing" in the Appendix for the location of the rock encountered and verification for appropriate cover thickness.

PROOFROLLING

Following excavation of Subcell 1B, Phase 2, the entire floor of the Subcell was proofrolled under the observation of ESP personnel. Proofrolling was performed using loaded off-road articulating dump trucks (approximately 80,000 pounds full). Soft or unstable areas were not encountered during proofrolling activities. Therefore, no undercutting was necessary after proposed grades were reached.

ACCESS

The existing access road will be utilized to haul waste to Subcell 1B, Phase 2 entering from the southwest corner. Trucks may also be directed to the existing access ramp into Subcell 1A to unload adjacent to Subcell 1B.

AS-BUILT CONDITONS

F. Donald Lawrence & Associates, P.A. provided a survey of the final excavated elevations based on an approximate 50-ft X 50-ft grid pattern. The field work used to produce the drawing was performed on May 10, 2002. The surveyors executed point elevations along the proposed contours and recorded the as-built elevation at each point. This information is tabulated on the drawing to illustrate the vertical difference between as-built grades and proposed grades. The proposed contours are shown on the as-built drawing along with the point elevations for reference. The as-built drawing is included in the Appendix of this report and indicates that Subcell 1B, Phase 2 has been constructed to the approximate grades as shown on the construction grading plan. The elevations and grades achieved following construction are topographically equal to or higher than the permitted elevations (reference S&ME Permit Drawings) and maintains a minimum 4-foot vertical separation from the approved potentiometric surface. Additionally, the as-built drawing indicates the location of rock encountered and the surveyed final elevation of cover placed above the rock. In excess of 4 feet of cover soils are in place above the rock exposed during construction.