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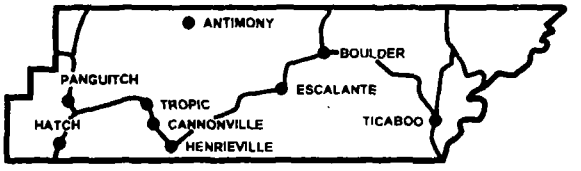
GARFIELD COUNTY



55 South Main Street, P.O. Box 77 • Panguitch, Utah 84759
Phone (435) 676-8826 • Fax (435) 676-8239

October 14, 2008

2008.03615

Robert Powers
Division of Solid and Hazardous Waste
P.O. Box 144880
Salt Lake City, Utah 84114

Dear Rob:

Enclosed are two paper copies and one electronic copy of the renewal document for the Ticaboo Class II Landfill. Also included are Garfield County's certification that the documents are accurate. If you need any additional information please contact me at (435) 676-1119.

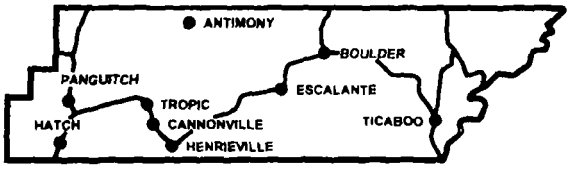
Sincerely,

Brian B. Bremner
Garfield County Engineer

BBB:clq

Enclosures

GARFIELD COUNTY



55 South Main Street, P.O. Box 77 • Panguitch, Utah 84759
Phone (435) 676-8826 • Fax (435) 676-8239

October 15, 2008

Mr. Dennis Downs
Executive Secretary
Division of Solid and Hazardous Waste
P.O. Box 144880
Salt Lake City, UT 84114-4880

Dear Mr. Downs:

Enclosed are the necessary permit renewal documents for the Ticaboo Class II Landfill.

Garfield County certifies under penalty of law that the documents and attachments were prepared under the direction of the Garfield County Commission in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on the County's inquiry of those who manage the system or are directly responsible for gathering the data, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. The County is aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or concerns, please contact me at (435) 676-1119. We thank you in advance for your cooperation.

Sincerely,

Brian B. Bremner
Garfield County Engineer

Utah Division of Solid and Hazardous Waste
Solid Waste Management Program

Mailing Address
P.O. Box 144880
Salt Lake City, Utah 84114-4880

Office Location
288 North 1460 West
Salt Lake City, Utah 84116

Phone (801) 538-6170
Fax (801) 538-6715
www.deq.utah.gov

APPLICATION FOR A PERMIT TO OPERATE A CLASS II LANDFILL

Please read the instructions that are found in the document, INSTRUCTIONS FOR APPLICATION FOR A PERMIT TO OPERATE A CLASS II LANDFILL. This application form shall be used for all Class II solid waste disposal facility permits and modifications. Part I, GENERAL INFORMATION, must accompany a permit application. Part II, APPLICATION CHECKLIST, is provided to assist applicants and, if included with the application, will assist review. Part II is provided to assist in preparation and review of a permit application, it is not rule. The text of the rule governs all permit application contents and should be consulted when questions arise.

Please note the version date of this form found on the lower right of the page; if you have received this form more than six months after this date it is recommended you contact our office at (801) 538-6170 to determine if this form is still current. When completed, please return this form and support documents, forms, drawings, and maps to:

Dennis R. Downs, Director
Division of Solid and Hazardous Waste
Utah Department of Environmental Quality
PO Box 144880
Salt Lake City, Utah 84114-4880

(Note: When the application is determined to be complete, submittal of two copies of the complete application will be required)

Utah Class II Landfill Permit Application Form

Part I General Information APPLICANT: PLEASE COMPLETE ALL SECTIONS.

I. Landfill Type	II. Application Type	
☒ Class II	☐ New Application ☒ Renewal Application	☐ Facility Expansion ☐ Modification

For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number 9203R2

III. Facility Name and Location

Legal Name of Facility
Ticaboo Sanitary Landfill

Site Address (street or directions to site)	County
SR-276, 3.5 Miles South of Ticaboo	

City	State	Zip Code	Telephone
	Ut		

Township	Range	Section(s)	Quarter/Quarter Section	Quarter Section
37	11	6	nw	se

Main Gate Latitude	degrees	minutes	seconds	Longitude	degrees	minutes	seconds
	37	37	2		110	43	42

IV. Facility Owner(s) Information

Legal Name of Facility Owner
Garfield County

Address (mailing)
P.O. Box 77

City	State	Zip Code	Telephone
Panguitch	UT	84759	(435) 676-1119

V. Facility Operator(s) Information

Legal Name of Facility Operator
Garfield County

Address (mailing)
P.O. Box 77

City	State	Zip Code	Telephone
Panguitch	UT	84759	(435) 676-1119

VI. Property Owner(s) Information

Legal Name of Property Owner
Garfield County

Address (mailing)
P.O. Box 77

City	State	Zip Code	Telephone
Panguitch	UT	84759	(435) 676-1119

VII. Contact Information

Owner Contact	Title
Brian Bremner	County Engineer

Address (mailing)
P.O. Box 77

City	State	Zip Code	Telephone
Panguitch	UT	84759	(435) 676-1119

Email Address	Alternative Telephone (cell or other)
engineer@scinternet.net	

Operator Contact	Title
Brian Bremner	

Address (mailing)
P.O. Box 77

City	State	Zip Code	Telephone
Panguitch	UT	84759	(435) 676-1119

Email Address	Alternative Telephone (cell or other)
engineer@scinternet.net	6901050

Property Owner Contact	Title
Brian Bremner	County Engineer

Address (mailing)
P.O. Box 77

City	State	Zip Code	Telephone
Panguitch	UT	84759	(435) 676-1119

Email Address	Alternative Telephone (cell or other)
engineer@scinternet.net	6901050

Utah Class II Landfill Permit Application Form

Part I General Information (continued)

VIII. Waste Types (check all that apply)

☒ All non-hazardous solid waste OR the following specific waste types:

Waste Type	Combined Disposal Unit	Monofill Unit
☐ Municipal Waste	☐	☐
☐ Construction & Demolition	☐	☐
☐ Industrial	☐	☐
☐ Incinerator Ash	☐	☐
☐ Animals	☐	☐
☐ Asbestos	☐	☐
☐ Other _____	☐	☐

IX. Facility Area

Facility Area	40	acres
Disposal Area	5	acres
Design Capacity		
Years	10	
Cubic Yards	_____	
Tons	1000000	

X. Fee and Application Documents

Indicate Documents Attached To This Application ☐ Application Fee. Amount $

☒ Facility Map or Maps	☒ Facility Legal Description	☒ Plan of Operation	☒ Waste Description
☐ Ground Water Report	☒ Closure Design	☒ Cost Estimates	☒ Financial Assurance

I HEREBY CERTIFY THAT THIS INFORMATION AND ALL ATTACHED PAGES ARE CORRECT AND COMPLETE.

Signature of Authorized Owner Representative Brian B. Bremner Name typed or printed	Title: County Engineer	Date: October 15, 2008 Address: P.O. Box 77, Panguitch, Utah 84759
Signature of Authorized Land Owner Representative (if applicable) Brian B. Bremner Name typed or printed	Title: County Engineer	Date: October 15, 2008 Address: P.O. Box 77, Panguitch, Utah 84759
Signature of Authorized Operator Representative (if applicable) Brian B. Bremner Name typed or printed	Title: County Engineer	Date: October 15, 2008 Address: P.O. Box 77, Panguitch, Utah 84759

I. **Facility General Information**	
Description of Item	Location In Document
Name of the local government with jurisdiction over the facility site (R315-310-3(2)(iii))	N/A
Ic. Location Standards - All New And Expanding Facilities	
Documentation that the facility has meet the historical survey requirement of R315-302-1(2)(f)	N/A
Land use compatibility (R315-302-1(2)(a))	N/A
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	N/A
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	N/A
List of airports within five miles of facility and distance to each	N/A
Geology (R315-302-1(2)(b))	N/A
Geologic maps showing significant geologic features, faults, and unstable areas	N/A
Maps showing site soils	N/A
Surface water (R315-302-1(2)(c))	N/A
Magnitude of 24 hour 25 year and 100 year storm events	N/A
Average annual rainfall	N/A
Maximum elevation of flood waters proximate to the facility	N/A
Maximum elevation of flood water from 100 year flood for waters proximate to the facility	N/A
Wetlands (R315-302-1(2)(d))	N/A
Ground water (R315-302-1(2)(e))	N/A
Id. Plan of Operations – All Facilities (R315-310-3(1)(e) and R315-302-2(2))	
Forms and other information as required in R3315-302-2(3) including a description of on-site waste handling procedures and an example of the form that will be used to record the weights or volumes of waste received (R315-302-2(2)(b) And R315-310-3(1)(f))	Page 3, 13, Exhibit 4a
Schedule for conducting inspections and monitoring, and examples of the forms that will be used to record the results of the inspections and monitoring (R315-302-2(2)(c), R315-302-2(5)(a), and R315-310-3(1)(g))	Page 3
Contingency plans in the event of a fire or explosion (R315-302-2(2)(d))	Page15
Corrective action programs to be initiated if ground water is contaminated (R315-302-2(2)(e))	Page 16
Contingency plans for other releases, e.g. explosive gases or failure of run-off collection system (R315-302-2(2)(f))	Page 16

I. **Facility General Information**	
Description of Item	Location In Document
Plan to control fugitive dust generated from roads, construction, general operations, and covering the waste (R315-302-2(2)(g))	Page 16
Plan for letter control and collection (R315-302-2(2)(h))	Page 16
Description of maintenance of installed equipment (R315-302-2(2)(i))	Page 16
Procedures for excluding the receipt of prohibited hazardous or PCB containing wastes (R315-302-2(2)(j))	Page 17
Procedures for controlling disease vectors (R315-302-2(2)(k))	Page 17
A plan for alternative waste handling (R315-302-2(2)(l))	Page 17
A general training and safety plan for site operations (R315-302-2(2)(o))	Page 18
Any recycling programs planned at the facility (R315-303-4(6))	Page 18
Closure and post-closure care Plan (R315-302-2(2)(m))	Page 19
Procedures for the handling of special wastes (R315-315)	Page 13
Plans and operation procedures to minimize liquids (R315-303-3(1)(a) and (b))	Page 13
Plans and procedures to address the requirements of R315-303-3(7)(c) through (i) and R315-303-4	N/A
Any other site specific information pertaining to the plan of operation required by the Executive Secretary (R315-302-2(2)(p))	N/A

II **Facility Technical Information**	
Description of Item	Location In Document
IIa. Maps – All Facilities	
Topographic map drawn to the required scale with contours showing the boundaries of the landfill unit, ground water monitoring well locations, gas monitoring points, and the borrow and fill areas (R315-310-4(2)(a)(i))	See Topographic Map
Most recent U.S. Geological Survey topographic map, 7-1/2 minute series, showing the waste facility boundary; the property boundary; surface drainage channels; any existing utilities and structures within one-fourth mile of the site; and the direction of the prevailing winds (R315-310-4(2)(a)(ii))	Attached
IIb. Geohydrological Assessment (R315-310-4(2)(b))	
Local and regional geology and hydrology including faults, unstable slopes and subsidence areas on site (R315-310-4(2)(b)(i))	Page 6
Evaluation of bedrock and soil types and properties including permeability rates (R315-310-4(2)(b)(ii))	Page 6
Depth to ground water (R315-310-4(2)(b)(iii))	Page 7
Quantity, location, and construction of any private or public wells on-site or within 2,000 feet of the facility boundary (R315-310-4(2)(b)(v))	Page 7

II Facility Technical Information	
Description of Item	Location In Document
Tabulation of all water rights for ground water and surface water on-site and within 2,000 feet of the facility boundary (R315-310-4(2)(b)(vi))	Page 7
Identification and description of all surface waters on-site and within one mile of the facility boundary (R315-310-4(2)(b)(vii))	N/A
For an existing facility, identification of impacts upon the ground water and surface water from leachate discharges (R315-310-4(2)(b)(viii))	None
Calculation of site water balance (R315-310-4(2)(b)(ix))	Page 7
IIc. Engineering Report - Plans, Specifications, And Calculations – All Facilities	
Documentation that the facility will meet all of the performance standards of R315-303-2	Page 10
Engineering reports required to meet the location standards of R315-302-1 including documentation of any demonstration or exemption made for any location standard (R315-310-4(2)(c)(i))	Page 10
Anticipated facility life and the basis for calculating the facility's life (R315-310-4(2)(c)(ii))	Page 10
Unit design to include cover design; fill methods; and elevation of final cover including plans and drawings signed and sealed by a professional engineer registered in the State of Utah, when required (R315-303-3(3), R315-303-3(6) and (7)(a), R315-310-3(1)(b) and R315-310-4(2)(c)(iii))	Attached
Equipment requirements and availability (R315-310-4(2)(c)(iii))	Page 12
Identification of borrow sources for daily and final cover and for soil liners (R315-310-4(2)(c)(iv))	Page 10
Run-On and run-off diversion designs (R315-303-3(1)(c), (d) and (e))	Attached
Landfill gas monitoring and control plan that meets the requirements of Subsection R315-303-3(5) (R315-310-4(2)(c)(vii))	Page 11
Slope stability analysis for static and under the anticipated seismic event for the facility (R315-310-4(2)(b)(i) and R315-302-1(2)(b)(ii))	N/A
Design and location of run-on and run-off control systems (R315-310-4(2)(c)(viii))	Attached
IId. Closure Plan – All Facilities (R315-310-3(1)(h))	
Closure Plan (R315-302-3(2) and (3))	Page 19
Closure schedule (R315-310-4(2)(d)(i))	Page 19
Design of final cover (R315-310-4(2)(c)(iii))	Page 19
Capacity of site in volume and tonnage (R315-310-4(2)(d)(ii))	Page 19
Final inspection by regulatory agencies (R315-310-4(2)(d)(iii))	Page 19
IIe. Post-Closure Care Plan – All Facilities (R315-310-3(1)(h))	
Post-Closure Plan (R315-302-3(5) and (6))	Page 20
Site monitoring of landfill gases, ground water, and surface water, if required (R315-310-4(2)(e)(i))	Page 20

***II.* Facility Technical Information**	
Description of Item	Location In Document
Changes to record of title, land use, and zoning restrictions (R315-310-4(2)(e)(ii))	Page 20
Maintenance activities to maintain cover and run-on/run-off control systems (R315-310-4(2)(e)(iii))	Page 20
List the name, address, and telephone number of the person or office to contact about the facility during the post-closure care period (R315-310-4(2)(e)(vi))	Page 21
***III.* Financial Assurance – All Facilities (R315-310-3(1)(j))**	
Identification of closure costs including cost calculations (R315-310-4(2)(d)(iv))	Page 22
Identification of post-closure care costs including cost calculations (R315-310-4(2)(e)(iv))	Page 22
Identification of the financial assurance mechanism that meets the requirements of Rule R315-309 and the date that the mechanism will become effective (R315-309-1(1))	Page 22

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RENEWAL APPLICATION FOR THE

TICABOO SANITARY LANDFILL

October 2008

Prepared by

GARFIELD COUNTY ENGINEERING DEPARTMENT

TABLE OF CONTENTS

PLAN OF OPERATION

CLOSURE / POST CLOSURE PLAN

FINANCIAL ASSURANCE PLAN

EXHIBITS

Exhibit 1	General Vicinity Map
Exhibit 2	Project Location Map
Exhibit 3a	Proof of Ownership
Exhibit 3b	Land Use/Zoning Map
Exhibit 4a	Daily Record Form
Exhibit 4b	Hazardous Waste/PCB Inspection Form
Exhibit 5	Quarterly Inspection Log

APPLICATION

INTRODUCTION

This report serves as the May 2008 renewal application for the Ticaboo Sanitary Landfill located approximately 3½ miles south of the community known as Ticaboo. The purpose of the report is to comply with R315-310-8 Administrative Rules of the Utah Division of Solid and Hazardous Waste, Utah Department of Environmental Quality.

Forty (40) acres have been acquired and are currently permitted for a sanitary landfill operation. Although centrally located to accommodate regionalization, the site is relatively isolated and has positive characteristics when considering topography, precipitation, groundwater, and soil permeability. The project is located in an area zoned multiple use. Operations have been initiated on a 10-acre site in the southern portion of the property. The population within the Ticaboo landfill service area is extremely limited.

Waste handled by the Ticaboo Sanitary Landfill is comprised primarily of recreational and household/ commercial waste generated in the service area. Some limited mining industry also exists within the service area. Commercial waste is basically high volume-low weight paper products. Tree limbs, grass clippings, and agricultural waste are accepted to the extent they are collected. Special wastes such as dead animals, water treatment plant sludge, certain bulky wastes (car bodies, furniture, appliances) will be accepted only as generated by the service area and only after proper handling provisions have been made. Hazardous waste will not be placed in the landfill facility.

A draft permit was issued to Garfield County on November 22, 1992, and a public comment period followed. The original permit (#92-03) was then issued on January 29, 1993, and the facility began accepting waste June 1, 1993. Exhibit 1 is a general vicinity map included in the original permit application.

RESPONSIBLE PARTIES

The applicant, property owner, and responsible party for site operation is:

Garfield County
Garfield County Courthouse
55 South Main
P. O. Box 77
Panguitch, UT 84759

ATTN: Brian Bremner
Phone: (801) 676-1119
Fax: (801) 676-8239

It should be noted Garfield County is continually upgrading solid waste management services. Future agreements, potential special service district creation, and alternate ownership/operation scenarios may require modification of this section of the permit. In addition, the County may contract site operations with private entities. Garfield County will notify the Executive Secretary of any changes in responsible party status at least 30 days prior to their effective date.

GENERAL DESCRIPTION

The Ticaboo Landfill is currently authorized as a Class II facility and was one of the first Utah landfills permitted after the promulgation of Subtitle D. The facility encompasses 40 acres with current operations located in the southwest corner of the property. Waste volumes average apporoximately1,900 tons/year and are not anticipated to exceed 20 tons per day any time in the near future.

The facility's service area includes eastern Garfield County, and those portions of San Juan and Kane Counties impacted by recreation at Bullfrog and Hite marinas on Lake Powell.

LEGAL DESCRIPTION

The landfill is legally described as the northwest ¼ of the southeast ¼ of Section 6, Township 37 South, Range 11 East.

Exhibit 2 depicts the property's relationship to adjacent sections, townships and ranges. Exhibit 3a is proof of ownership for the property, and Exhibit 3b is the land use/zoning map accepted as part of the original application.

The facility's main gate is located at 110° 43' 42" longitude and 37° 37' 02" latitude. The project is located in an area zoned for multiple use. All lands surrounding the facility are multiple use lands. A conditional use permit has been issued, and further land use permits are not required.

WASTE TYPES/AREA TO BE SERVED

Waste accepted by the Ticaboo Sanitary Landfill is comprised of municipal solid waste generated within the service area. Waste includes household waste, recreational waste, commercial waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and other wastes approved by the permit. Special waste shall be accepted and handled in accordance with

Administration Rule R315-315 and the conditions of this permit.

The current service area for the Ticaboo Landfill consists of all lands within Garfield County and those portions of San Juan and Kane Counties impacted by recreation/tourism at federal recreation sites in southeastern Utah. Those sites include but are not limited to Glen Canyon National Recreation Area, Arches National Park, Capitol Reef National Park, Canyonlands National Park, and the Grand Staircase/Escalante National Monument. In addition, federal, State and private entities that cannot be serviced by other facilities may contract with the Ticaboo Landfill on an individual basis.

Garfield County is the owner and operator of the landfill. Garfield County is a body politic and a local subdivision of state government. As such, Garfield County is a tax exempt division of government and cannot provide public services on a commercial basis. Revenues generated at the landfill are used only for solid waste management activities and are not used to fund other governmental activities. Receipts from entities outside Garfield County boundaries are credited to the Solid Waste Management Department budget and are used only to offset solid waste services.

REQUIRED FORMS

The daily record form used to record weights of volumes of waste received required by Subsection R315-302-2(3)(a)(i) is included as Exhibit 4a. A record form used to record inspections for hazardous waste and PCBs is included as Exhibit 4b.

INSPECTIONS

The owner or operator will inspect the facility to prevent malfunctions, deterioration, operation errors, and discharges which may result in the release of wastes to the environment or a threat to human health. The owner or operator will conduct these inspections at least once each quarter and will complete the inspection log included as Exhibit 5. The inspection log will be kept for a minimum of three (3) years from the date of inspection.

The Executive Secretary or any duly authorized officer, employee or representative of the Board may, at any reasonable time the facility is open and upon presentation of acceptable credentials, enter the facility for inspection purposes. Certified copies of all sampling, monitoring, and testing records, including photographic, video, and electronic data, and all data, communications, and results of the inspection shall be furnished to the owner and to the operator within 30 days of the inspection. A written summary of the inspection containing a list of any deficiencies and recommended actions will be furnished to the owner and to the operator as soon as practicable. In addition, the inspector may discuss potential problems and make preliminary recommendations prior to leaving the facility.

CLOSURE AND POST CLOSURE

The detailed closure and post-closure plans required by Subsection R315-302-3 are included in other sections of this document. Closure operations will be performed on an ongoing basis as cells reach final elevation. Post-closure care will be performed as described below.

WATER QUALITY REVIEW

The Utah Division of Water Quality issued a groundwater discharge permit for the Ticaboo Landfill on February 27, 1992. Changes in State regulations now allow landfills to be permitted by rule. Therefore, renewal of the existing permit is not required.

The Ticaboo Landfill receives less than 20 tons of waste per year and is located in an area that receives less than 25 inches of precipitation annually. In addition drilling in the area documented in previous applications indicates no groundwater exists within 100 feet of the proposed cell. These characteristics qualify the Ticaboo Landfill as a rural arid landfill and make the facility eligible for groundwater monitoring exemptions. No groundwater monitoring or leachate collection is proposed for the landfill.

Use of an industrial or domestic waste water treatment facility is not contemplated for the Ticaboo Sanitary Landfill. Water balance calculations submitted as part of the original application indicate a diminimus quantity of leachate will be developed at the site. Any leachate collected at the landfill will be evaporated or used in dust control and compaction operations within the active area of the landfill.

CONTOURING, FINAL COVER AND SEEDING

Closure operations will consist of leveling, contouring, placement of appropriate covers, and seeding as necessary to reduce infiltration and preserve the integrity of the completed areas of the landfill. Areas of the landfill reaching final elevation will be closed within six (6) months. Closure operations will include leveling and contouring using intermediate cover to reduce infiltration and ponding. Excess material may be stripped and utilized in other operations or left in place. After grading operations promoting drainage are complete, earthen material which increases the total cover depth to 2 feet including 6 inches of native material will be installed. Geosynthentic clay liners and other alternate covering systems may also be used when permeability characteristics are equal or better than earthen materials and when approved by the Executive Secretary.

Upon completion of the covering operations, closed areas will be seeded. The seed mixture shall be developed after consultation with local range specialists and verifying availability of local seed markets. Recently closed sections of the landfill will be evaluated as part of the quarterly inspection process and will be placed on post-closure status.

FINANCIAL ASSURANCE

A detailed financial assurance plan as required by R315-309 is included in other sections of this document. The Ticaboo Sanitary Landfill has established an escrow account for financial assurance sufficient to assure adequate closure, post-closure care, and corrective action, if required. Minimum payments of $7,300.00 per year will be made until the account achieves an $36,500.00 balance. The County's auditors have recently evaluated the requirements as part of Garfield County's annual audit. Results of the evaluation indicate the County is also eligible for financial assurance by passing the local government financial test. If for some future reason it is in Garfield County's interest to pass the local government financial test, the County will petition the Executive Secretary for the appropriate change. Garfield County reserves the right to alter the financial assurance mechanism as bonds, insurance, guarantees and other vehicles become available.

GEOHYDROLOGICAL ASSESSMENT

GEOLOGY

The geologic profile at the Ticaboo Sanitary Landfill is generally characterized as 10 to 50 feet of poorly graded sand or silty sand above approximately 450 feet of Entrada sandstone, with occasional interbedded shale and siltstone layers. These formations are underlain by 200 to 300 feet of Carmel limestone and then a Navajo sandstone formation to an undetermined depth. Numerous drill logs in the area indicate that the groundwater depth is approximately 350 feet below the surface.

HYDROLOGY

Generally the hydrologic setting can be classified as arid. Normal annual precipitation at the Ticaboo Sanitary Landfill is approximately 6" with a majority of the precipitation in the form of summer thundershowers. Normal potential evapotranspiration is estimated in excess of 70 inches. Climatic conditions described in Technical Publication No. 84 of Utah's Department of Natural Resources indicates the following:

> "Summer precipitation usually is in the form of thunderstorms, which are localized, intense, and short lived. There is little time for precipitation from such storms to infiltrate into the groundwater system, and most of the precipitation becomes runoff."

The report further credits the Bureau of Reclamation with determining little if any groundwater recharge occurs at elevations less than 8,000 feet. The landfill is located at approximately 4,000 feet MSL.

ON-SITE SOIL PROPERTIES

The United States Department of Agriculture, Soil Conservation Services (S.C.S.) has described the surface soils as follows:

> "Typically, the surface is light reddish-brown, loamy, fine sand about 3 inches thick. The upper 37 inches of the underlying material is light reddish-brown, loamy, fine sand, and the lower part to a depth of 60 inches or more is pink, loamy, fine sand that has common gypsum crystals."

In their soil survey of the Henry Mountains Area, the S.C.S. further states average annual precipitation is about 5 to 8 inches, runoff is slow, and the hazard of water erosion is slight.

GROUNDWATER

The site is located in an area covered with 10 to 50 feet of wind-deposited sand. The sand overlies the Entrada sandstone, a generally massive, well-sorted fine grained sandstone with minor, interbedded siltstone and shale. The Entrada sandstone is about 450 feet thick in this area. Drill logs in the area indicate that ground water is located about 350 feet below the surface. Ground water movement in massive sandstone such as the Entrada is controlled by joints and other fractures within the sandstone, and the patterns of such fractures would not be visible at the site because of the sand cover. It is possible that ground water in this area is out of equilibrium because of the filling of nearby Lake Powell, and may not reach a new equilibrium for several hundred years. Because of these complications and the arid climate of the area (which does not promote leachate formation), ground water monitoring will not be required for this permit.

Groundwater quality beneath the landfill site is unknown. The arid climate, local surface material and underlying bedrock eliminate any reasonable probability of contaminating groundwater from the surface. Exploratory wells to determine groundwater quality are an obvious conduit for any contamination and are considered inappropriate for this site.

WELLS AND WATER RIGHTS

No wells or water rights exist within 2,000 ft. of the proposed landfill. At the time of original permitting, the closest adjacent wells were located approximately 1½ miles from the proposed site and have static water depths of 357 feet below the surface. Exhibit #4 of the original permit application was a table containing location and depths of wells in the area.

SURFACE WATERS

The proposed site is free from watercourses, washes, and run-on type surface waters. No live streams or intermittent water courses traverse the proposed site. No floodplain mapping has been performed on the area due to the lack of any water courses.

The proposed site is free from natural or manmade surface drainage channels. The terrain is generally described as gently, rolling, and sloping dune material. Due to the high permeability of the surface soils and the low amounts of annual precipitation, no water courses or surface drainage channels have been formed.

WATER BALANCE / MONITORING

A conservative water balance for the site was performed utilizing the Army Corp of Engineers

HELP Model to assume a leachate production. Estimates were developed utilizing temperature and precipitation data obtained from the Bullfrog area and soil properties determined from onsite drilling and investigations. Water balance calculations indicated that a diminimus quantity of leachate could be developed onsite. Furthermore, any leachate development during the 10 year permit life should not develop within 10 feet of the bottom of the solid waste.

Groundwater monitoring has not been implemented at the Ticaboo landfill and is not anticipated during the life of the permit. Extreme depth to groundwater, limited precipitation and extensive evapotranspiration render groundwater monitoring impractical.

IMPACTS TO WATER RESOURCES

As a small, arid facility, the Ticaboo Landfill is exempt from groundwater monitoring requirements. The landfill receives less than 20 tons of waste per day, receives less than 25 inches of precipitation per year and is located more than 300 feet above existing groundwater aquifers. These characteristics indicate groundwater monitoring requirements for the facility are not necessary.

In addition, there is no potential for migration of hazardous constituents from the facility to the groundwater during the active life of the facility and during the post-closure period. This conclusion is supported by three separate analysis: (1) onsite geologic and hydrologic conditions, (2) water balance and leachate production modeling, and (3) operational practices which minimize the amount of water that can come in contact with the waste. Each analysis makes its own strong argument for suspending groundwater monitoring requirements.

Geologic and hydrologic conditions demonstrate a diminimus potential for hazardous constituents reaching groundwater resources. Nearby drilling operations indicate an absence of groundwater for a depth of more than 300 feet. The site is characterized by alluvial material of moderate permeability and limited precipitation. Hydrologic reports indicate little if any groundwater recharge occurs at the landfill elevation.

In addition to favorable soil conditions and depths to groundwater which minimize the potential for liquid migration, local climatic conditions eliminate the production of significant amounts of leachate. Average annual precipitation is only 6.1 inches per year, and potential evapotranspiration exceeds precipitation by about 10 times. The lack of significant moisture passing beyond the vegetative zone is evidenced by the sparsely grown surface plants which are limited by minimum amounts of moisture.

Water balance and leachate production modeling also demonstrate a diminimus potential for hazardous constituents reaching groundwater resources. HELP model analysis submitted as part of the original groundwater discharge permit indicates numerous years of worst case conditions would be required for leachate to be produced in sufficient quantities to result in the migration of any liquid to the groundwater. Worst case scenarios were evaluated, so actual conditions will result in an even greater level of confidence and a lower production of leachate than identified by the model.

Operational practices will also reduce the amount of water that could possibly come in contact with the waste. Any limited surface waters will be diverted by creating ditches, roads and berms to protect landfill cells from run-on water for storms considerably greater than the 25-year event. No surface drainage channels currently exits adjacent to the cell. The size and progression of the units will result in cells being brought to final elevation and closed in the minimum amount of time possible, reducing the amount of water entering the waste. Contouring operations will reduce ponding and promote drainage away from active areas. All of these measures result in the reduction of an extremely limited source of moisture.

Considering on-site geologic and hydrologic conditions, water balance and leachate production modeling, and operational practices which reduce the amount of water contacting the waste, groundwater monitoring and/or vadose zone monitoring are not justified. In fact installation of monitoring wells may provide a more viable conduit for groundwater contamination. The Executive Secretary is requested to exempt the Ticaboo Sanitary Landfill from groundwater monitoring requirements in accordance with Subsection R315-303-3.(3)(e) of the Solid Waste Rules.

PRELIMINARY ENGINEERING REPORT

SITING CRITERIA

The Ticaboo Sanitary Landfill complies with siting criteria currently mandated by Subtitle D and recognized by the State of Utah Solid and Hazardous Waste Committee. Specifically, no airport is located within 10,000 feet of the proposed landfill. The site is free from unstable areas and is not located within a 100-year floodplain or in any wetland. In addition to federal mandated criteria, the site is compatible with existing land uses, long-term landfill operation and is in a remote area free from dwellings and other incompatible structures such as churches, schools, hospitals, etc. Cultural resources within the landfill have not been encountered. If discovered, cultural resources will be mitigated in accordance with SHPO requirements.

SOLID WASTE MANAGEMENT COMPLIANCE

The Garfield County Solid Waste Management Plan required by Senate Bill 255 contemplates continued use of the Ticaboo Landfill. Repermitting the facility at this time is in complete accordance with the Plan.

FACILITY LIFE

The anticipated facility life for the Ticaboo Landfill cannot be accurately estimated. Estimates conducted by The Division of Solid and Hazardous Waste during the landfill's initial stages predicted a life in excess of 50 years. To date less than 10% of available air space is being used for landfill operations. Based on the overall size of the property, relatively low waste volumes, and current efficiencies, facility life is estimated far in excess of the 10 year permit.

LINER DESIGN

Currently Ticaboo Landfill is a natural attenuation Class II facility. No liner is required for the Ticaboo Landfill

BORROW SOURCES

The Ticaboo Landfill will utilize on-site sources for all operational needs. Current estimates indicate approximately 375,000 cubic yards of material is available on site. If for any reason borrow material becomes unsuitable, alternate borrow sources will be obtained. Current cell operations use excavated, on-site material and provide ongoing borrow activities.

LEACHATE COLLECTION, TREATMENT AND DISPOSAL

The Ticaboo Sanitary Landfill is a natural attenuation facility located in an arid region with favorable soil conditions. Regional water balance calculations indicate a diminimus volume of leachate could be generated at the landfill. As a Class II facility with groundwater more than 100 feet deep, the landfill does not utilize leachate collection, treatment and disposal mentods.

LANDFILL GAS CONTROL AND MONITORING

Due to the arid nature of the climate at the Ticaboo Sanitary Landfill and the low volume of waste accepted at the facility, landfill gas concentrations are not anticipated to reach significant levels. The relatively large area of the proposed facility is designed to accommodate dissipation of any landfill gases prior to reaching the property boundary.

Monitoring for landfill gases will be conducted as part of the quarterly inspections performed by landfill managers. Concentration will be measured in any future structure. Results will be recorded on quarterly inspection forms.

Should unacceptable levels of landfill gases be detected, contingency plans described in other areas of this permit will be implemented. If gas levels exceed 25% of the lower explosive limit in structures or the 100% of the lower explosive limit at property boundaries, immediate action will be taken to protect human health, and the Executive Secretary will be contacted within 24 hours. Additional state regulations, including operating record notations within seven days and implementation of a remediation plan within sixty days, will be completed.

CELL DESIGN AND OPERATION

The Ticaboo Sanitary Landfill is designed to minimize active areas and to reach final elevation as soon as practical in order to minimize infiltration and leachate generation. The cells are designed to accommodate from two to seven years of waste and to expand in an orderly fashion from south to north.

Cells will be approximately 30 - 40 feet in depth, and bottom widths have been excavated to 200 feet or more wide. Length of the cells will vary with volumes of waste, season of the year, and soil stockpile needs. The cell will continue in a northerly direction as needed. Interior side slopes are initially excavated at 4:1 and may be steepened to 2:1 to accept additional waste and augment covering operations. Exterior fill slopes may be as steep as 3:1 and may extend above natural ground by 60 feet or more.

Near the close of each working day, waste will be spread, compacted and covered with 6 inches of native soil or an alternate daily cover that has been approved by the Executive Secretary. When daily waste volumes are too small to permit efficient use of landfill space, solid waste will be stockpiled at the working face and covered with an alternate daily cover. The alternate daily cover

will consist of a plastic blanket meeting Executive Secretary requirements. If used, the blanket will be removed at least weekly, and waste will be covered with a minimum of 6 inches of earthen material. Historic use of the blanket has demonstrated it controls vectors, odors, blowing litter, and scavenging. The weekly application of 6 inches of earthen material creates a fire barrier to control fires.

The 60-foot cell height described earlier is a nominal dimension and does not consider final slopes to promote drainage or additional covering requirements. Cells are anticipated to consist of solid waste compacted in lifts ranging from 6 feet to 12 feet and covered with 6 inches to 12 inches of daily or intermediate cover material.

EQUIPMENT AVAILABILITY

Equipment operating at the Ticaboo Sanitary Landfill includes a landfill compactor. In addition, backhoes, loaders, scrapers and other construction equipment owned by Garfield County may be used from time to time at the landfill.

PLAN OF OPERATION

INTRODUCTION

This document constitutes the plan of operation for the Ticaboo Sanitary Landfill and is intended to comply with the Utah Division of Solid and Hazardous Waste Administrative Rules. Technical questions and comments may be directed to:

Brian B. Bremner, P.E.
P.O. Box 77
Panguitch, Utah 84759
(801) 676-1119

INTENDED SCHEDULE OF CONSTRUCTION

The Ticaboo Sanitary Landfill is capable of meeting solid waste disposal needs for Garfield County for as many as 50 years. The Ticaboo Sanitary Landfill has been operational for approximately 14 years. This application is required for renewal of the permit. Adequate capacity exists, and the existing excavation will be expanded in an ongoing manner as portions of the cell attain final elevation. The intended schedule of construction listing major activities for the life of this permit is found below. The schedule may be updated as part of the regular permit review process.

July, 2008	Obtain renewed permit from Solid and Hazardous Waste.
Ongoing	Close portions of the landfill reaching final elevation and expand cell to provide additional disposal space.

HANDLING PROCEDURES

During the active life of the landfill material designated for disposal will be brought to the working face where it will be dumped, spread, and compacted. No later than the end of each day's operation, waste will be covered with a minimum of 6 inches of earthen material, or with an alternate daily cover that has been approved by the Executive Secretary. Covering operations shall minimize the possibility of infiltration and maintain blowing trash at acceptable levels. If blowing trash exceeds acceptable levels, handling procedures will be modified and/or covering will be performed more frequently. Procedures for the handling of specific wastes including but not limited to dead animals, large appliances, car bodies and asbestos are delineated below. Scavenging will not be permitted at the site.

The landfill currently accepts only non friable asbestos waste for disposal. Although not currently planned, friable asbestos wastes may be accepted if the conditions of UAC R 315-315-2 are satisfied as follows: a) the asbestos waste is adequately wetted and properly containerized by double bagging and sealing in 6 mil or thicker plastic bags to prevent fiber release and b) asbestos waste containers are generated, and tagged with a warning label that conforms to the requirements of 40 CFR Part 61.149(2).

If properly transported and packaged, asbestos waste which meets the above criteria is received at the landfill, the operator will:

- Verify the quantities of waste received, sign off on the waste shipment record, and send a copy of the waste shipment record to the generator within 30 days;
- Require vehicles that have transported asbestos waste to be marked with warning signs as specified in 40 CFR Part 61.149(d)(1)(iii);
- Inspect the load to verify that the asbestos waste is properly contained in leak-proof containers and properly labeled;
- Place asbestos containers at the bottom of the active face with sufficient care to avoid breaking the containers;
- Cover the waste within 18 hours with a minimum of six inches of material that does not contain asbestos;
- Provide barriers to limit public access to the asbestos disposal area until the waste has been covered with six inches of material which does not contain asbestos; and
- Place warning signs at the entrance and around the perimeter of the asbestos disposal area which comply with 40 CFR 61.154(b).

If the attendant believes the condition of an incoming asbestos load is such that significant amounts of fiber may be released during disposal, the attendant will notify the local and regional health departments and the Executive Secretary. If the wastes are not properly containerized, and the landfill operator inadvertently accepts the load, the operator shall thoroughly soak the asbestos material with a water spray prior to unloading, rinse out the haul truck, dispose of the waste near the base of the active face, and immediately cover the waste prior to compaction with six inches of non-asbestos material in a manner sufficient to prevent fiber release.

Ash will be transported in such a manner to prevent leakage or the release of fugitive dust. The landfill operator will unload the transport vehicles at the bottom of the working face and keep the ash wetted, if necessary, to prevent fugitive emissions prior to covering; and within 24 hours, the operator will completely cover the ash with a minimum of 6 inches of other non-ash landfill waste or a minimum of 6 inches of material containing no waste or use other methods or materials, if necessary, to control fugitive dust.

Bulky waste such as automobile bodies, furniture, and appliances will be crushed and then pushed onto the working face near the bottom of the cell or into a separate disposal area.

The landfill will minimize liquids by prohibiting containerized liquids or waste containing free liquids in containers larger than five gallons, non containerized liquids, and /or sludges containing free liquids. No waste treatment plant sludge, digested waste water treatment plant sludge, or septage containing free liquids will be disposed in portions of the landfill containing other solid waste. Water treatment plant sludge, digested waste water treatment plant sludge, or septage containing no free liquids will be placed at or near the bottom of the landfill working face and covered with other solid waste or other suitable cover material.

Dead animals received at the facility will be deposited onto the working face at or near the bottom of the cell with other solid waste, or into a separate disposal trench provided they are covered daily with a minimum of 6 inches of earth to prevent odors and the propagation and harborage of rodents and insects.

Areas of the landfill that have not received waste for a period of more than 60 days will be covered with an intermediate cover that consists of a minimum of 12 inches of earthen material.

INSPECTIONS AND MONITORING

Inspection and monitoring at the Ticaboo Sanitary Landfill will be conducted in two components: (1) routine and (2) compliance. Routine inspections will be conducted on incoming material on a random basis to prohibit receipt of unacceptable wastes. In addition, random checks will be made during deposition, spreading, and covering operations to insure protection of the environment and absence of nuisances. Waste screening inspection will be made by trained personnel; operational inspection will be made by supervisory landfill personnel.

Compliance inspections will be conducted quarterly to assess the integrity of cover, the condition of side slopes and vegetative cover, and the impacts of erosion. In addition, a detailed annual inspection will be conducted to verify compliance with all permit conditions and state and federal regulations. All inspection records will be kept at the landfill or the closest reasonable location for the current calendar year. Within 30 days of the end of the calendar year, annual records will be transferred to the County Courthouse and will be stored for a minimum of three years.

FIRE/EXPLOSION CONTINGENCY PLAN

In the event of fire or explosion which prevents the use of the active area of the Ticaboo Sanitary Landfill, an alternate area of the landfill will be designated for temporary disposal. If use of the alternate area extends beyond one week, a plan of operation acceptable to the Executive Secretary will be developed.

CORRECTIVE ACTION FOR CONTAMINATED GROUNDWATER

This section describes corrective actions to be taken by owners and operators to regain compliance with protection levels for the Ticaboo Sanitary Landfill in the event acceptable concentration limits are exceeded in any down gradient well as a result of landfill operations. No monitoring wells currently exist on site.

When the concentration of parameters in any down gradient well exceeds acceptable limits, as a result of landfill operations and as substantiated by confirmatory analysis, owners and operators of the Ticaboo Sanitary Landfill will implement a corrective action program as outlined in R315-308.

CONTINGENCY PLAN FOR OTHER RELEASES

This section describes corrective actions to be taken by the Ticaboo Sanitary Landfill to regain compliance with the protection levels of the permit in the event releases are discovered and acceptable concentration limits are exceeded.

When the concentration of parameters exceed acceptable limits as substantiated by confirmatory analyses, owners and operators of the Ticaboo Sanitary Landfill will implement a corrective action program approved by the Executive Secretary.

DUST CONTROL / AIR QUALITY

Fugitive dust is not anticipated to reach unacceptable levels at the Ticaboo Sanitary Landfill due to the granular nature of the predominant soils. If fugitive dust exceeds acceptable levels, actions will be implemented to reduce dust. These actions may include watering access roads, developing wind breaks, altering management scenarios, or other appropriate measures.

LITTER CONTROL

Litter is controlled through use of best management practices. Active areas and working faces are limited; waste is covered shortly after deposition; and blowing trash is confined as much as practical. In addition, litter control fencing has been established along the perimeter of the active area. However, high winds occasionally occur at the landfill. Any litter escaping the perimeter of the landfill will be periodically picked up by hand.

EQUIPMENT MAINTENANCE

Active collection systems for leachate and/or explosive gases are not proposed for the Ticaboo Sanitary Landfill. Therefore, no maintenance will be required for these items. Maintenance of equipment used in day-to-day operations will be performed by landfill employees or contracted

mechanics in accordance with manufacturers' recommendations and industry practices.

EXCLUSION OF HAZARDOUS WASTE

As a small rural landfill, the Ticaboo facility is in a favorable position regarding exclusion of hazardous waste. During periods when the landfill is not open to the public, waste will be observed as it is removed from the collection vehicle. The waste will be further examined for hazardous materials as it is being spread by the operator and compacted. If hazardous materials are found, the collection vehicle driver will be notified and the unacceptable substance will be removed from the landfill.

During periods when the landfill is open for public disposal as least one percent of the vehicles and other suspicious loads will be directed to dispose of their material near the working face. The waste generator will be detained while the load is inspected. For large loads, the waste will be spread and landfill operators will walk through the waste. If prohibited hazardous waste or prohibited waste containing PCB's are encountered, they will not be accepted. The executive Secretary, the hauler and the generator will be notified within 24 hours. Considering population served, waste volumes generated, and complexity of the solid waste stream, these measures are considered to be adequate.

A section documenting the results of the formal inspections outlined above has been included as part of the daily record forms (see Exhibit 4b). Including hazardous/ PCB waste on the record forms will allow landfill managers to incorporate inspections in their daily routine and will permit regular reviews and inspections to be added efficiently while examining waste volumes.

DISEASE VECTOR CONTROL

The primary method for disease vector control at the Ticaboo Sanitary Landfill will be providing appropriate cover at the close of each day's operation. The cover will consist of a 6-inch minimum layer of earthen material or an alternate daily cover approved by the Executive Secretary.

Rodents and other vermin will not be permitted to burrow in the active area of the landfill; and trapping or extinction methods will be implemented to protect the integrity of the disease vector control program.

ALTERNATIVE DISPOSAL

Alternative waste handling procedures for periods when the landfill is not in operation will be similar to procedures for fires and explosions. Waste will be deposited in the alternate disposal site and covered with 6" of earthen material or an alternate daily cover. Procedures will continue in this manner until operations at the landfill can return to normal.

In the event of equipment breakdown that cannot be repaired in a reasonable time, equipment will

be borrowed from contributing entities or leased from local distributors. It is the intent of owners and operators to have dedicated equipment at the landfill and, over a period of time, acquire appropriate backup equipment.

TRAINING AND SAFETY PLAN

Currently one employee involved with the Ticaboo Sanitary Landfill has completed the Manager of Landfill Operations Training Course and the Waste Screening Training Course provided by the Solid Waste Association of North America (SWANA). Limited training and educational experience exists for operators of rural landfills; however, employees will be encouraged to attend appropriate seminars and training as time and budgets permit. All landfill employees have been provided with timely and sufficient training to operate the landfill within regulatory requirements. New landfill employees will also be provided similar training. Training opportunities include access to SWANA training materials, on site training from certified managers, random training from landfill owners, and training from state regulatory staff during on site inspections.

Safety procedures will conform to OSHA guidelines; and personnel will be encouraged to participate in additional landfill management, waste screening, safety, and first aid workshops.

RECYCLING

No viable recycling markets currently exist for solid waste disposed at the Ticaboo Sanitary Landfill. Some private recycling efforts exist in the general area for aluminum cans. However, no formal recycling program is anticipated for this facility.

CLOSURE / POST CLOSURE PLAN

CLOSURE SEASON AND YEAR

Closure operations at the Ticaboo Sanitary Landfill will be performed on an ongoing basis. Adequate capacity exists at the landfill to continue operation for many years. A final closing date cannot be determined at this time. Ongoing closure operations will generally be performed on a year-round basis as weather permits. No area larger than 4 acres that has achieved final elevation will remain open longer than 6 months. Within 60 days of final receipt of waste in a landfill unit, Garfield County will notify the Executive Secretary of their intent implement the closure plan. Landfill operators will implement closure operations within 30 days of receipt of final waste volumes. If weather or size limitations make closure operations impractical, closed units will be covered with a total of 18 inches of earthen materials and final closure will be implemented as soon as practical. Closure activities will be completed within 180 days of their actual starting date. Additionally, within 90 days of completion of closure operations, owners / operators of the Ticaboo Landfill will submit to the Executive Secretary as built drawings and certifications signed by a professional engineer indicating the unit has been closed according to the approved closure plan and modifications authorized by the Executive Secretary.

SITE CAPACITY

Site capacity for the entire Ticaboo Sanitary Landfill cannot be accurately estimated. Information submitted to the Department as part of a NMOC Emission Inventory estimates landfill capacity at 1,032,533 tons.

FINAL COVER

Unlined cells will be covered with 18 inches of earthen material having a permeability of 1×10^{-5} cm/sec. and 6 inches of topsoil. Landfill operators have encountered difficulty constructing earthen covers while meeting stringent quality assurance guidelines. For this reason, an engineered earthen cover, a geosynthentic clay liner or a 60 mil HDPE liner may be used when permeability characteristics are equal or better than earthen materials. The selected option will be submitted to the Executive Secretary for approval as part of the notification process.

FINAL INSPECTION

The Ticaboo Landfill is anticipated to operate well beyond the life of this permit. At least 60 days prior to any closure, the Division of Solid and Hazardous Waste will be contacted, and a final inspection will be scheduled. The Executive Secretary will be informed of incremental closure of individual cells through routine state inspections, annual reports, and renewal applications. In addition, a QA/QC plan will be submitted for approval prior to any closure operations. Within 90

days of unit and/or facility closure, as built plans signed by a professional engineer shall be forwarded to the Executive Secretary.

Landfill owners and operators shall allow the Executive Secretary of the Utah Solid and Hazardous Waste Control Board or an authorized representative, including representatives from the local District Health Department, upon representation of credentials, to enter during operating hours and/or inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under this permit.

A record of the inspection may be made by photographic, videotape, electronic or other reasonable means, and a copy of any such record shall be provided to the owner and the operator within a reasonable time.

SITE MONITORING

No permanent monitoring devices are proposed for the Ticaboo Sanitary Landfill. Landfill gas in closed sections will be monitored as described for active cells in the Preliminary Engineering Report section of this document.

No groundwater monitoring wells, lysimeters, vadose zone equipment or other monitors are planned for this facility. Surface waters in closed portions of the landfill will be evaluated as part of the annual inspection. Monitoring will be limited to identifying situations which promote infiltration.

LAND TRANSFERS AND USES

Plats and a statement of fact concerning the location of any disposal site shall be recorded as part of the record of title with the County Recorder not later than 60 days after certification of closure. Upon recording, proof of the record of filing will be submitted to the Executive Secretary.

POST CLOSURE MAINTENANCE

Post-closure care of inactive sections of the landfill will consist of maintaining the integrity of the final and vegetative covers. Any areas subject to erosion will be corrected, and appropriate measures will be implemented to identify and eliminate the source. No active or technical devices are proposed for use at the Ticaboo Sanitary Landfill. Best management practices will be implemented to minimize infiltration and assure the integrity of the run-on/run-off system. Evaluation of the system will be made during the quarterly inspections, and corrective measures, if any, will be implemented. Run-on and run-off from events smaller than the 25-year storm will be controlled.

No leachate collection devices are proposed for the facility. Closed portions of the landfill will be inspected as part of the quarterly reviews performed by the landfill operator. Closed areas will also be inspected as part of the in-depth annual inspection. Any deficiencies will be repaired as soon as practical. For those failures which jeopardize the environmental integrity of the facility or permit the uncontrolled infiltration of significant amounts of moisture, corrective measures will be initiated immediately.

No alternate land use for closed sections has been developed to date. Closed cells will remain under the jurisdiction of the landfill manager. If alternate land use plans are developed they will be addressed during the permit renewal process, or a separate permit modification may be processed.

RESPONSIBLE PARTIES

The applicant, property owner, and responsible party for the post closure care period is:

Garfield County
Garfield County Courthouse
55 South Main
P. O. Box 77
Panguitch, UT 84759
Phone: (435) 676-8826
Fax: (435) 676-8239

It should be noted Garfield County is continually upgrading solid waste management services. Future agreements, potential special service district creation, the extended life of the landfill, and alternate ownership/operation scenarios may require modification of this section of the permit. In addition, the County may contract site operations with private entities. Garfield County will notify the Executive Secretary of any changes in responsible party status at least 30 days prior to their effective date. Other changes to the information listed above will be provided in annual reports and permit renewal documents.

FINANCIAL ASSURANCE PLAN

This section of the permit describes compliance with Subsection R315-309, Financial Assurance of the Proposed Solid Waste Permitting and Management Rules. Cost estimates consider the most expensive option during the period and are based on a third party performing closure and post-closure care.

MECHANISMS

The Ticaboo Landfill complies with financial assurance requirements based on: 1) an outstanding general bond rating of Baa issued by Moody's; 2) financial statements prepared in conformity with Generally Accepted Accounting Principles for governments audited by an independent certified public accountant: and 3) references to the closure and post closure costs in the current and subsequent comprehensive annual financial reports. However, Garfield County elected to meet financial assurance requirements by maintaining an existing, dedicated escrow account with the State Treasurer (PTIF # 6182). In accordance with Executive Secretary approval, funds in excess of the estimate listed below may be used for capital improvements, to offset rate increases, operational expenses and other items deemed necessary by landfill managers. The Ticaboo Sanitary Landfill may alter the mechanism to include the government test, insurance, surety bonds, trust funds, or other options as they become feasible.

COST ESTIMATE

Closure and post-closure cost estimates were developed considering the largest area of the disposal facility requiring final cover during the operating period and using projections for a third party to perform the work. Estimates were developed using Utah State guidance, historical costs, project records and standardized rates for Garfield County. A cost estimate summary identifying major closure and post-closure components is included below, and detailed information regarding closure and post-closure costs is included as an Appendix. Other items identified in the rules are not applicable to the Ticaboo Landfill.

Closure Costs

Survey / Site Evaluation	$ 2400.00
Project Management	9,250.00
Site Repair	3000.00
Grading	1800.00
Geosynthetic Cover	45,000.00

Soil Cover	20,000.00
Vegetation	1,200.00
Gas Collection	600.00
Subtotal	$ 83,250.00
Contingency	8,750.00
TOTAL	$ 92,000.00

Post-Closure Costs

Engineering	$ 21,000.00
Cover Maintenance	2,360.00
Leachate Collection System	0.00
General Maintenance	1,300.00
Subtotal	$ 24,660.00
Contingency	2,340.00
TOTAL	$ 27,000.00
TOTAL CLOSURE / POST CLOSURE COSTS	$119,000.00

SCHEDULE OF PAYMENTS

A schedule of payments has been developed to enable the Ticaboo Landfill to fulfill financial assurance requirements. Based on current estimates, a payment schedule which insures the availability of sufficient funds within 5 years for closure and post-closure care would be as follows:

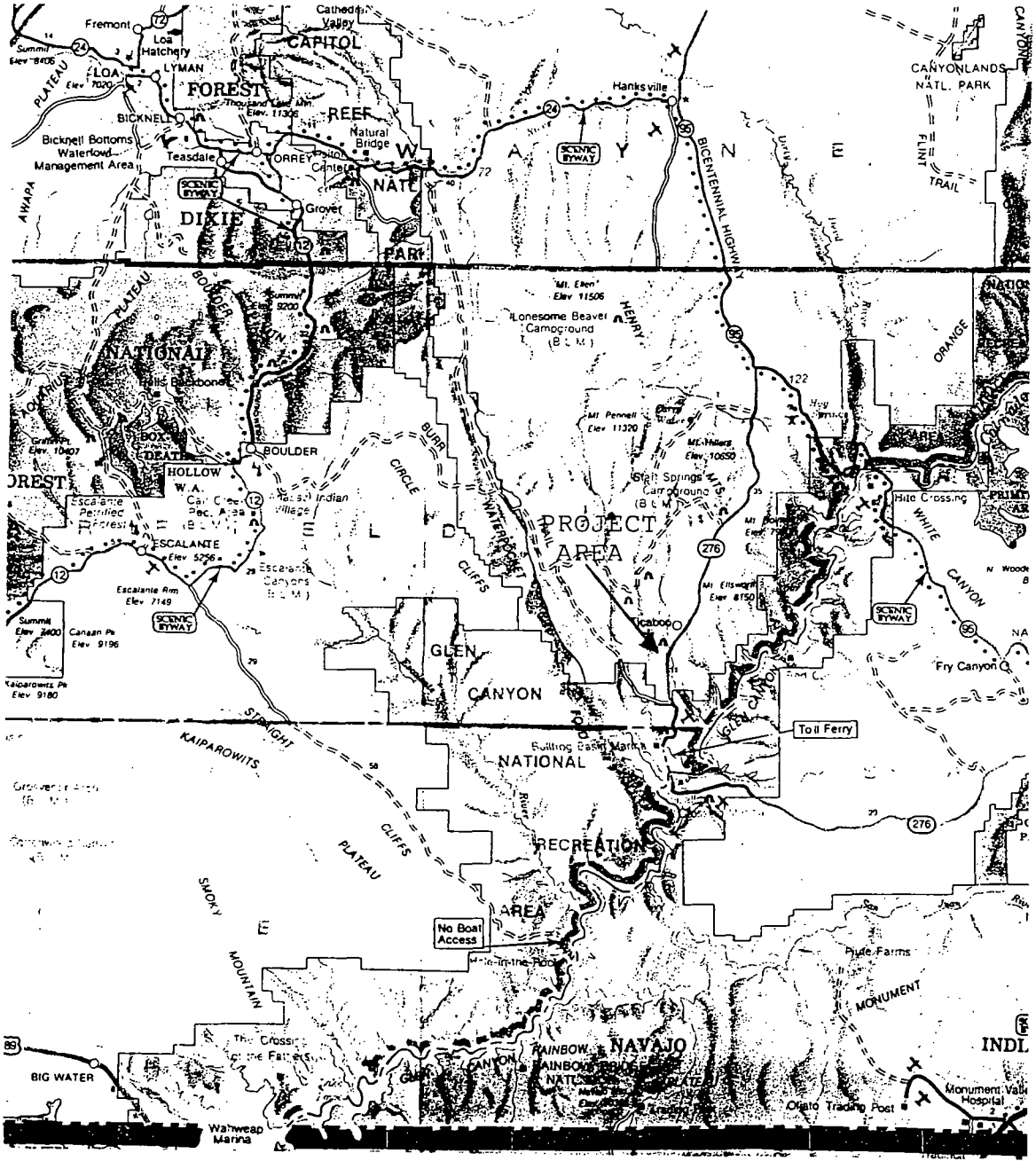
Balance at notice	$ 40,000
Notice plus 1 year	$ 15,800
Notice plus 2 years	$ 15,800
Notice plus 3 years	$ 15,800
Notice plus 4 years	$ 15,800
Notice plus 5 years	$ 15,800
5-Year Total	$119,000

EXHIBITS

Exhibit 1	General Vicinity Map
Exhibit 2	Project Location Map
Exhibit 3a	Proof of Ownership
Exhibit 3b	Land Use/Zoning Map
Exhibit 4a	Daily Record Form
Exhibit 4b	Hazardous Waste/PCB Inspection Form
Exhibit 5	Quarterly Inspection Log

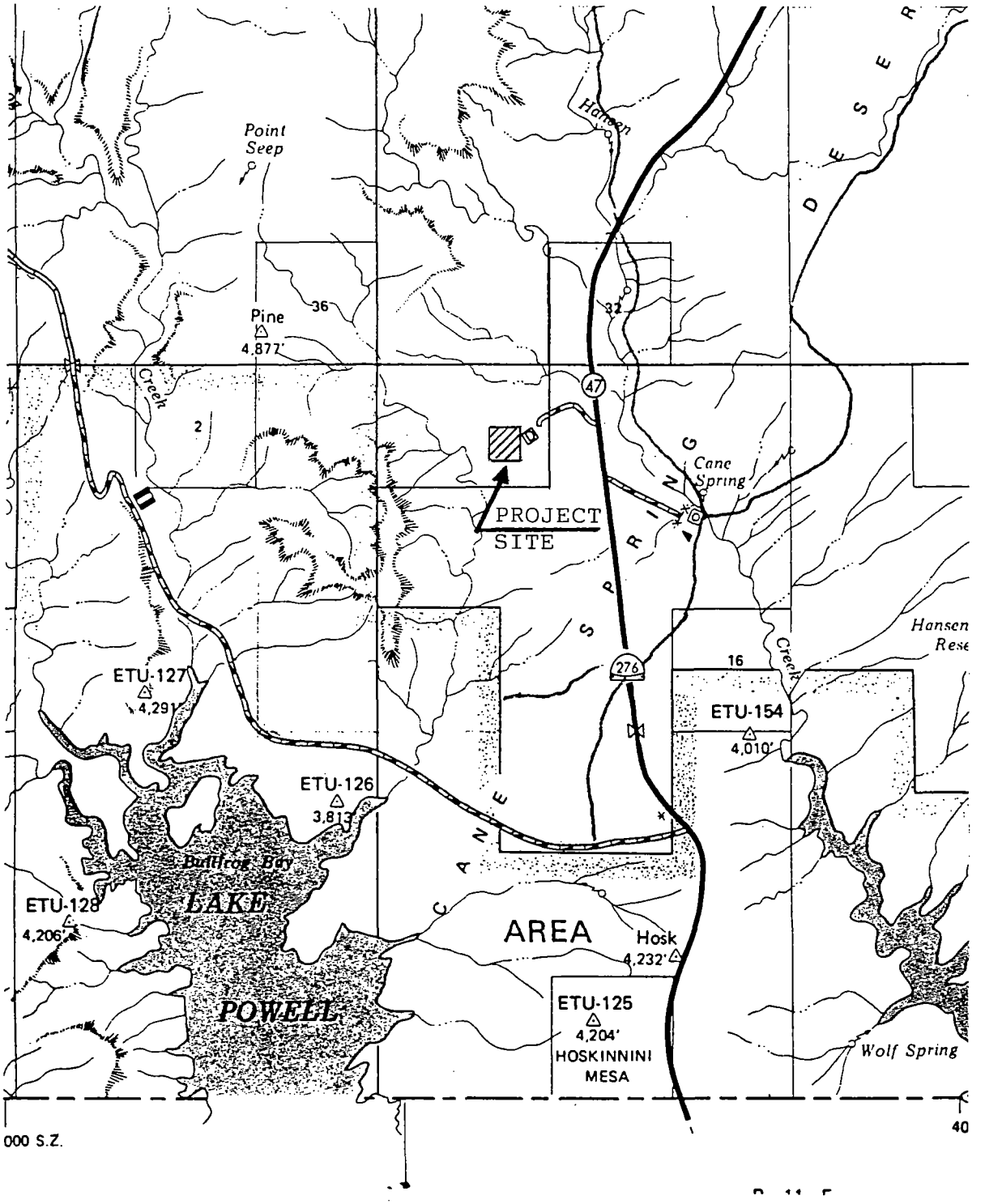
APPENDIX

Appendix 1.	Preparation of Closure / Post Closure Cost Estimates for Ticaboo Class II Landfill



TICABOO SANITARY LANDFILL

Exhibit 1. General Vicinity Map



TICABOO SANITARY LANDFILL

Exhibit 2. Project Location Map

(July 1987)

The United States of America

To all to whom these presents shall come, Greeting:

ENTRY NO. 217866 RECORDED 5-10, 1993 AT 10:50 A.M.
AT REQUEST OF Brian Bremner
FEE 0
RECORDER GARFIELD COUNTY, UTAH
DEPUTY LuRea Burton

Serial: Utah 60631

WHEREAS,

Garfield County, Utah

is entitled to a land patent pursuant to Section 203 of the Act of October 21, 1976, 90 Stat. 2750; 43 U.S.C. 1713, for the following described land:

Salt Lake Meridian, Utah

T. 37 S., R. 11 E.,
sec. 6, NW¼SE¼.

Containing 40.00 acres

NOW KNOW YE, that there is, therefore, granted by the UNITED STATES, unto the above named claimant the land above described: TO HAVE AND TO HOLD the said land with all rights, privileges, immunities, and appurtenances, of whatsoever nature, thereunto belonging, unto the said claimant, its successors and assigns, forever;

EXCEPTING AND RESERVING TO THE UNITED STATES:

1. A right-of-way thereon for ditches and canals constructed by the authority of the United States. Act of August 30, 1890; 26 Stat. 391; 43 U.S.C. 945 (1970).

2. All minerals in the land described above, with the right to prospect for, mine, and remove the same under applicable law and such regulations as the Secretary may prescribe.

IN TESTIMONY WHEREOF, the undersigned authorized officer of the Bureau of Land Management, in accordance with the provisions of the Act of June 17, 1948 (62 Stat. 476), has, in the name of the United States, caused these letters to be made Patent, and the Seal of the Bureau to be hereunto affixed.

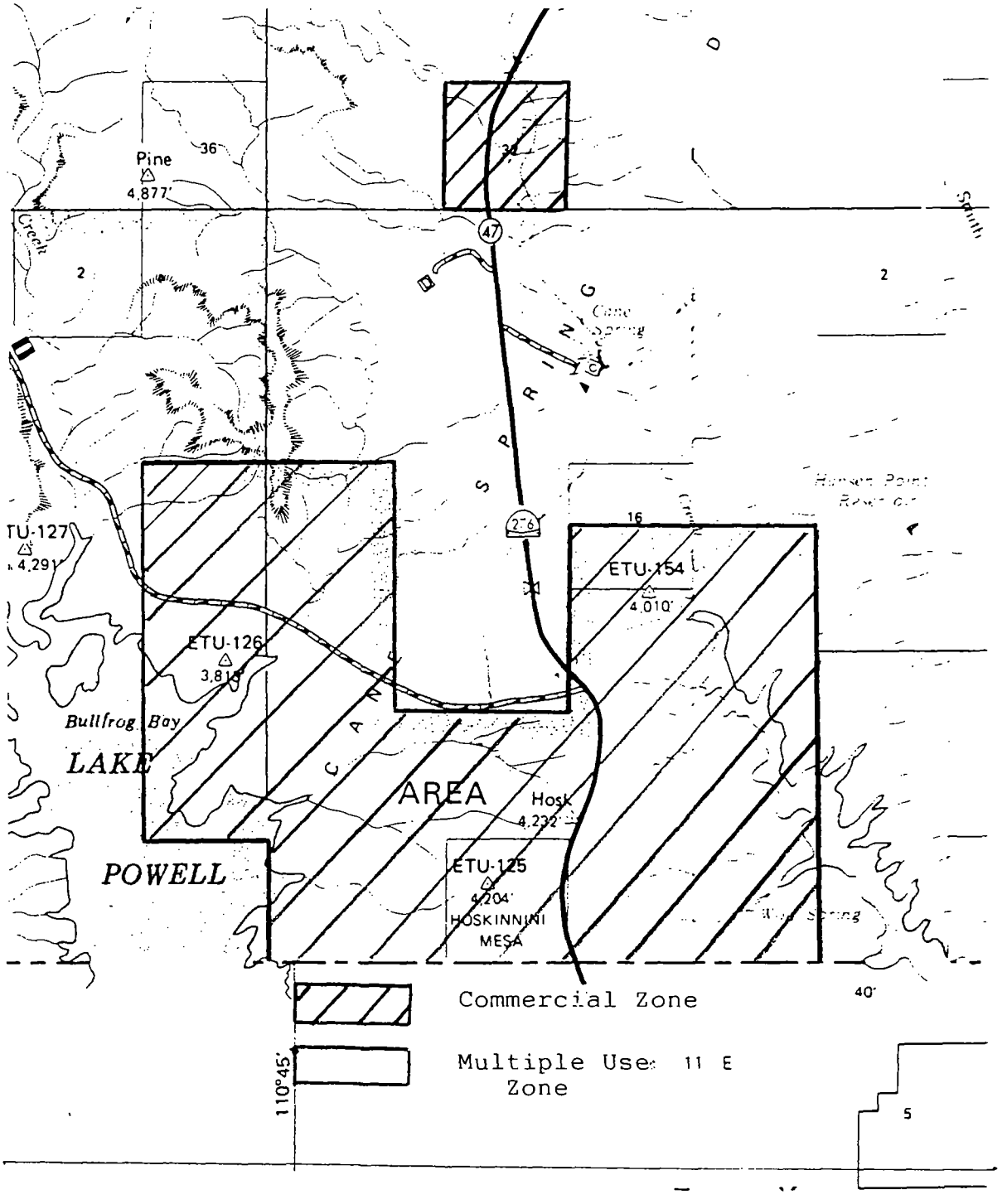
GIVEN under my hand, in Salt Lake City, Utah
the twenty-seventh day of April
in the year of our Lord one thousand nine hundred and ninety-three and of the Independence of the United States the two hundred and seventeenth

By
Chief, Branch of Lands and Minerals, Operations

Patent Number 43-93-0016

BOOK 313 PAGE 838

TICABOO SANITARY LANDFILL - Exhibit 3a - Proof of Ownership



TICABOO SANITARY LANDFILL

Exhibit 3b Project Zoning Map

TICABOO CLASS II SANITARY LANDFILL

Daily Operations Report for _____

Time	Name/Vehicle #	Origin	Contents	Volume

ACTIVITIES CONDUCTED

_____ Daily Cover Applied
_____ Intermediate Cover Applied
_____ Hazardous Characterization
_____ Rejection Waste Loads
_____ Deviation From The Plan of Operation
_____ Facility Construction and Repairs
_____ Litter Control or Collection
_____ Loads/Volume Recorded
_____ Monitoring Activities
_____ Self Inspection Conducted
_____ Regulatory Inspection
_____ Employee Training

X = YES Blank = NO

COMMENTS

_____

_____

_____

_____

_____

Signature of Person Completing Report _____

TICABOO SANITARY LANDFILL

Hazardous/PCB Record Form

Date _____ Time _____ Vehicle No. _____

Random Selection: Yes__/No__ Suspicious Load: Yes__/No__ Other: _____

Vehicle Owner: _____ _____

Name Address

_____ _____

City State Phone

Waste Origin: _____

Waste Types: _____

Describe any hazardous or PCB wastes encountered: _____

_____

Action Taken: _____

_____

_____

Comments: _____

_____

_____

_____

If hazardous waste or PCB waste is encountered, contact the Division of Solid and Hazardous Waste
at (801) 538-6170.

Signature _____ Date _____

TICABOO SANITARY LANDFILL

Quarterly Inspection Log

This document is the official form required for compliance with R315-301-7(5)(a) for the Ticaboo Sanitary Landfill.

Date _____ Time _____ Weather _____

Inspection Team: _____

_____

_____

Observations: _____

_____

_____

Date and Nature of Repairs/Corrective Action: _____

_____

_____

_____

Other: _____

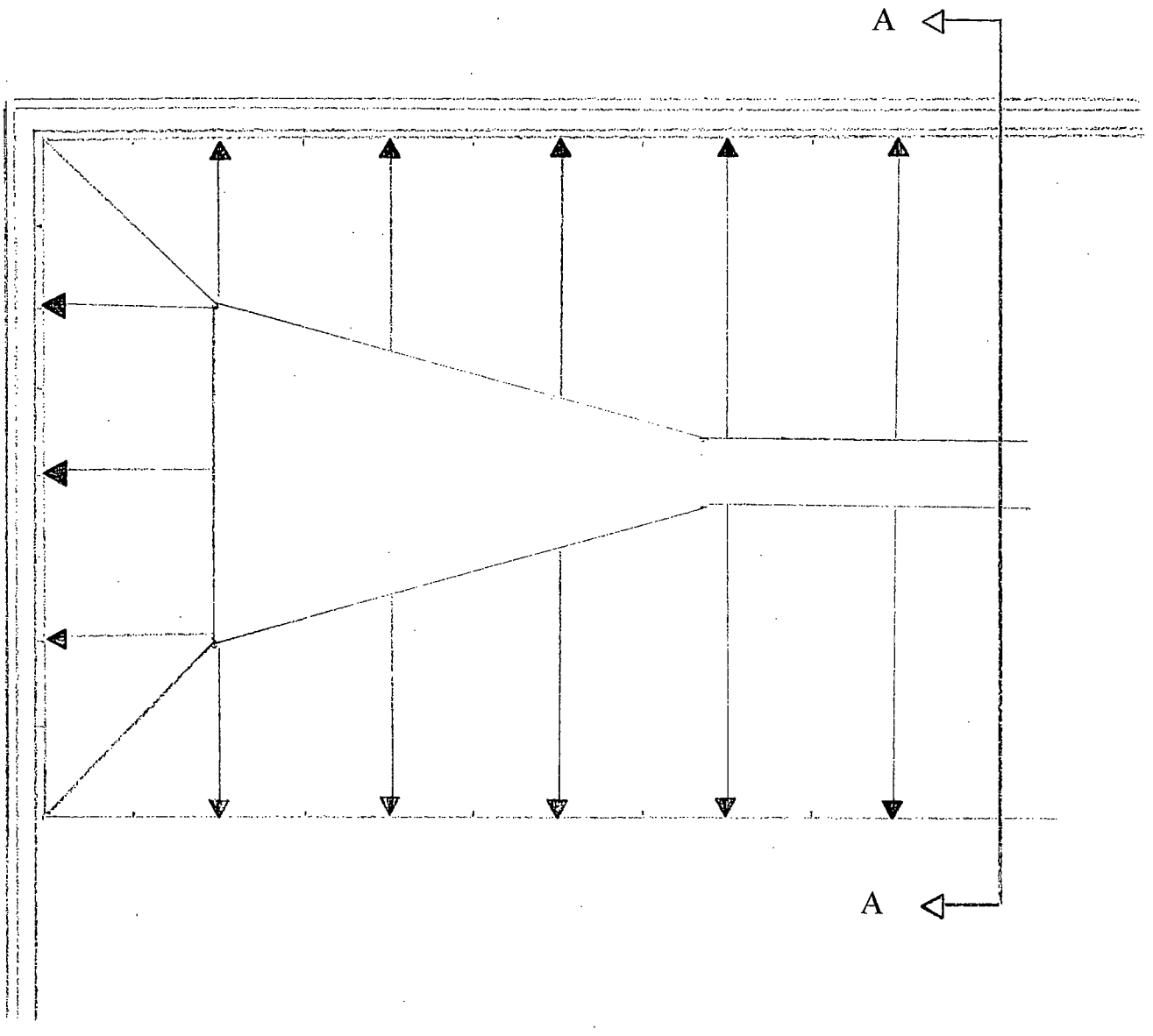
_____

_____

_____ _____

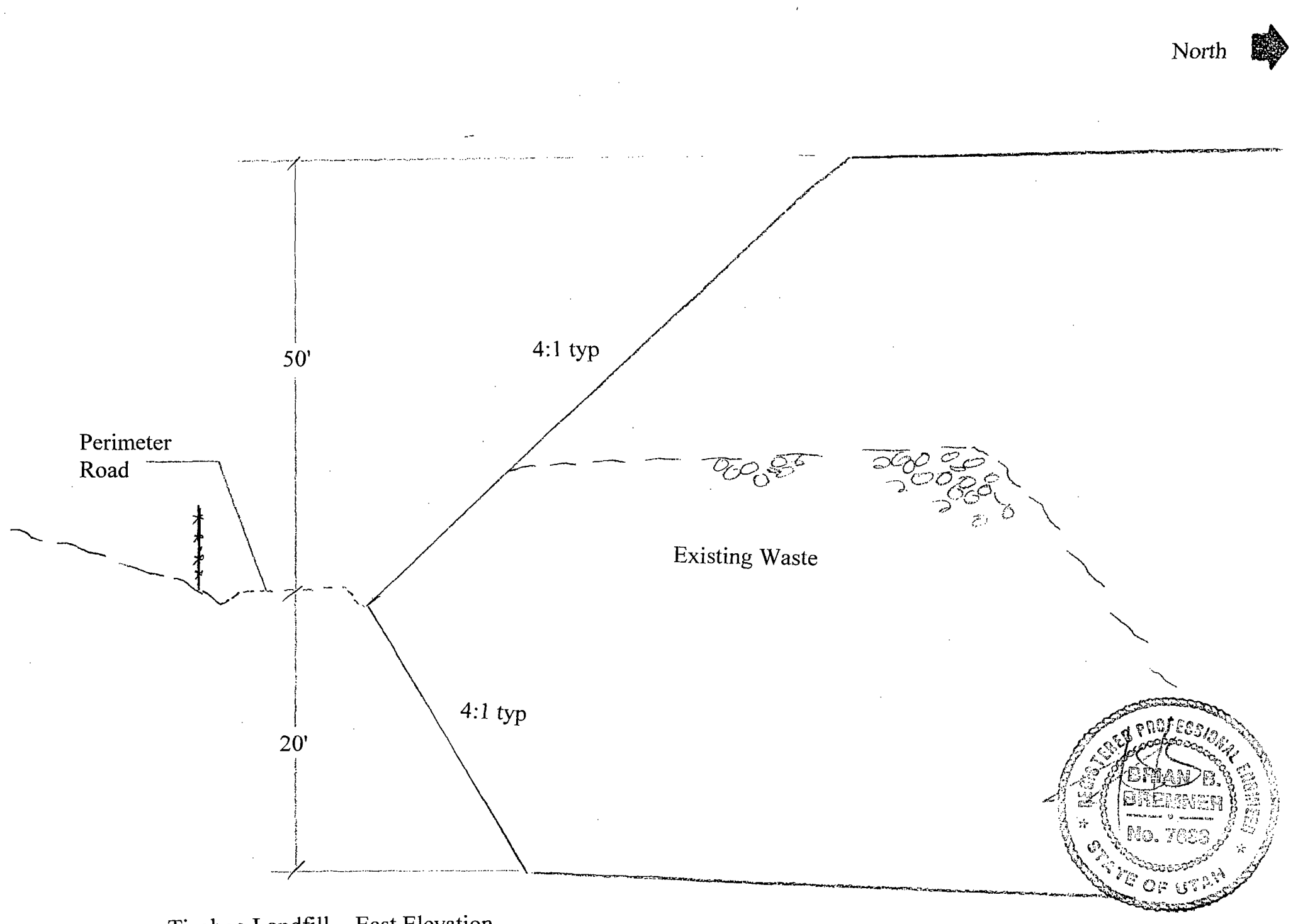
Name of Inspector Signature

This form shall be kept on site (or at another convenient location if no permanent office facilities exist) for a minimum of 3 years.



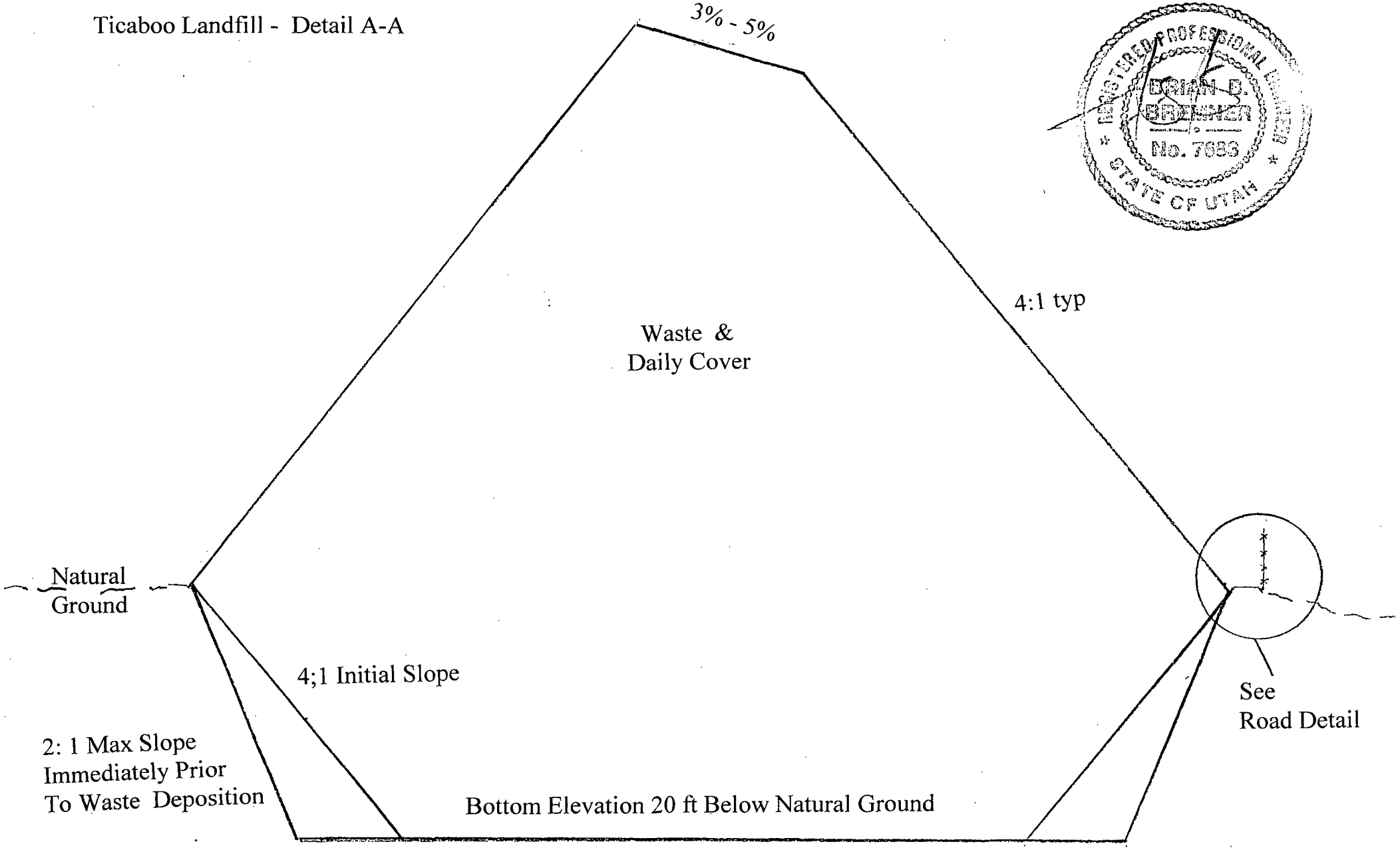
North

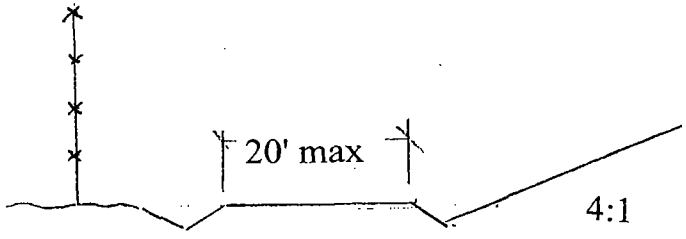
Ticaboo Landfill - Plan View



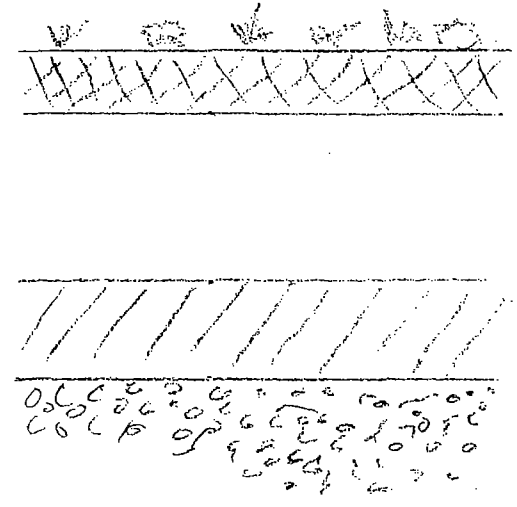
Ticaboo Landfill - East Elevation

Ticaboo Landfill - Detail A-A



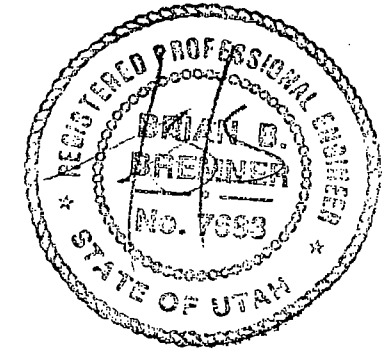


Perimeter Road
Detail



- 6" Topsoil
- 18" $1x10^{-6}$ cm / sec. or State Approved Alternate
- Intermediate Cover
- Waste

Final Cover
Detail



Ticaboo Landfill - Details