Appendix J

Hazardous, Toxic and Radioactive Waste

- Environmental Condition of Property/Phase I New Savannah Bluff Lock and Dam, Augusta Georgia (Dec 2018)
- Hazardous Building Materials Survey New Savannah Bluff Lock & Dam Augusta, Georgia (April 2017)
- Asbestos Survey New Savannah Bluff Lock & Dam Augusta, Georgia (April 2017)
- Electronic Documents Review (Oct 2018)

ENVIRONMENTAL CONDITION of PROPERTY/ PHASE I

NEW SAVANNAH BLUFF LOCK and DAM

AUGUSTA, GEORGIA

Prepared For:

U.S. Army Corps of Engineers, Savannah District

Planning, Programs and Project Management Division

By:

U.S. Army Corps of Engineers, Savannah District Geology/Hydrogeology and HTRW Design Section



DECEMBER 2018

ENVIRONMENTAL CONDITION OF PROPERTY/PHASE I

NEW SAVANNAH BLUFF LOCK AND DAM

AUGUSTA, GEORGIA

SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional, as defined in section 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the All Appropriate Inquiries Rule with the standards and practices set forth in 40 CFR Part 312.

PREPARED BY:

Renee Hill Geologist U.S. Army Corps of Engineers

REVIEWED BY:

Jason Lennane, P.G. Chief, Geology/Hydrology and HTRW Design Section U.S. Army Corps of Engineers This page intentionally left blank.

EXECUTIVE SUMMARY

This environmental condition of property (ECP)/Phase One report has been prepared to assist the United States Army Corps of Engineers (USACE) with the path forward, demolition, repair, or partial rehabilitation, for The New Savannah Bluff Lock and Dam (NSBLD).

U.S. Department of Defense (DoD) policy and Army Regulation 200-1, *Environmental Protection and Enhancement*, require that an ECP report be prepared before any real property may be sold, leased, transferred, or acquired. The ECP report establishes a baseline the Army can use in making decisions about future real property transactions. The ECP report is also intended to help the Army meets its obligations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), section 120(h), as amended through Title 2 of the *United States Code* section 9620. The report provides the Army with a basis for identifying areas of real property that may be classified as uncontaminated under CERCLA section 120(h) and DoD policy.

This ECP/Phase One report documents the physical and environmental condition of the NSBLD and any impacts resulting from past storage, use, release, and disposal of hazardous substances and petroleum products. The environmental condition of the NSBLD documented in this ECP/Phase One report is based on the history of the property and surrounding properties; the findings of the visual site inspection; the results of past environmental sampling conducted in and around the NSBLD; and any other environmentally related surveys, reports, and investigation results available at the time this document was prepared. DoD guidance and the ASTM International (ASTM) 2013 standard practice for conducting an environmental baseline survey and a Phase I environmental site assessment (ASTM D6008-96[2014] and E1527-13) were used to prepare this ECP/Phase I report (ASTM 2014, 2013).

On the basis of the findings within this ECP/Phase One report, the NSBLD, has been given an ECP classification of 1 (WHITE), which indicates areas where no release, disposal, of hazardous substances or petroleum products (including no migration of those substances from adjacent areas). ECP definitions are derived from the Community Environmental Response Facilitation Act Guidance (public Law 102-426, 1992), the Base Development and Realignment Manual (DoD 2006), Office of Soild Waste and Emergency Response Directive 9345.0-09 (USEPA 1994), and ASTM D5746 (ASTM 2010).

CONTENTS

Εž	KECU	TIV	E SUMMARY	i
1	INT	ROI	DUCTION	1
	1.1	INT	TRODUCTION AND BACKGROUND	1
	1.2	PRO	OPERTY DESCRIPTION	2
	1.3	LIN	1ITATIONS	2
2	SUI	RVE	Y METHOD	3
	2.1	API	PROACH AND RATIONALE	3
	2.2	RE	CORD REVIEW	4
	2.3	VIS	UAL SITE INSPECTION	4
	2.4	INT	TERVIEWS	5
	2.5		CONNAISSANCE OF ADJACENT PROPERTIES	
	2.6	PRO	OPERTY CLASSIFICATIONS	5
3	SUI	MMA	ARY OF DATA FOR SUBJECT PROPERTY	7
	3.1 MAN		VIRONMENTAL SETTING AND SUMMARY OF ENVIRONMENTAL EMENT INTERVIEWS AND RESEARCH	7
	3.1.	1	Location, Description, and Setting	7
	3.1.	2	Topography	7
	3.1.	3	Geology	7
	3.1.	4	Surface Water	8
	3.1.	5	Floodplains	8
	3.1.	6	Wetlands	8
	3.1.	7	Climate	9
	3.1.	8	Historical and Cultural Resources	9
	3.1.	9	Title Search	10
	3.1.	10	Threatened or Endangered Species	10
	3.1.	11	Permits and Other Requirements	11
	3.1.	12	Waste Management	11
	3.1.	13	Storage Tanks	11
	3.1.	14	Oil/Water Separators	11
	3.1.	15	Asbestos-Containing Material	12

3.	1.16	Hazardous Materials	. 12
3.	1.17	Polychlorinated Biphenyls	. 13
3.	1.18	Pesticides	. 14
3.	1.19	Munitions and Explosives of Concern	. 14
3.	1.20	Medical/Biohazardous Waste and Silver Recovery	. 14
3.	1.21	Radioactive Materials	. 14
3.	1.22	Radon	. 14
3.	1.23	Mold	. 14
3.	1.24	Vapor Intrusion	. 14
3.	1.25	Spills and Releases	. 14
3.	1.26	Other	. 15
3.2	RE	CORDS REVIEW	. 15
3.3	VIS	UAL SITE INSPECTION	. 15
3.4	AD	DITIONAL INTERVIEWS	. 17
4 S	UMM	ARY OF DATA FOR SUBJECT AND ADJACENT PROPERTIES	. 17
4.1	RE	CORDS REVIEW AND INTERVIEW RESULTS	. 17
4.2	DA	TABASE SEARCH FINDINGS	. 18
4.	2.1	Orphan Sites	. 18
4.3	SA	NBORN MAPS, CITY DIRECTORIES, AND LIENS REVIEW	. 19
4.4	WA	ATER WELL SEARCH	. 19
4.5	HIS	TORICAL AERIAL PHOTOGRAPH AND TOPOGRAPHIC MAP REVIEW	. 19
5 C	ONCL	USIONS	. 22
5.1	EN	VIRONMENTAL CONDITION OF PROPERTY	. 22
5.	1.1	Environmental Remediation Sites	. 23
5.	1.2	Storage, Release, or Disposal of Hazardous Substances	. 23
5.	1.3	Petroleum and Petroleum Products	. 23
5.	1.4	Polychlorinated Biphenyls	. 23
5.	1.5	Asbestos-Containing Material	. 23
5.	1.6	Lead-Based Paint	. 23
5.	1.7	Radiological Materials	. 23
5.	1.8	Radon	. 24

5.1.9	Munitions and Explosives of Concern	24
5.1.1	0 Other Property Conditions	24
5.3 I	ENVIRONMENTAL REMEDIATION AGREEMENTS	24
REFI	ERENCES	26
PERS	SONS CONSULTED	27
ACR	ONYMS AND ABBREVIATIONS	29
	5.1.1 5.2 5.3 REFI PERS	5.1.9 Munitions and Explosives of Concern 7 5.1.10 Other Property Conditions 7 5.2 ADJACENT PROPERTY CONDITIONS 7 5.3 ENVIRONMENTAL REMEDIATION AGREEMENTS 7 REFERENCES 7 PERSONS CONSULTED 7 ACRONYMS AND ABBREVIATIONS 7

FIGURES

Figure 1	New Savannah Bluff Lock and Dam Location Map
Figure 2	New Savannah Bluff Lock and Dam Environmental Conditional of Property Map

TABLES

Table ES-1	Summary of Environmental Condition of Property of Subject Property	.ii
Table 1-1	Federal Endangered, Threatened and Candidate Species	.10
Table 4-1	USGS Water Wells	.19
Table 5-1	Summary of Environmental Condition of Property of Subject Property	.21

APPENDICES

- A 2017 Asbestos Inspection and Survey Report
- B 2017 Hazardous Building Material Survey
- C Visual Site Inspection Photographs
- D EDR Radius Map Report with GeoCheck
- E Historical Aerial Photographs and Topographic Maps

This page intentionally left blank

1 INTRODUCTION

1.1 INTRODUCTION AND BACKGROUND

This environmental condition of property (ECP)/Phase One report has been prepared to assist the USACE in planning for the demolition, repair, or partial rehabilitation of the New Savannah Bluff Lock and Dam (NSBLD) facility.

The NSBLD consists of a lock, a dam, a public park and recreational facilities. The lock and dam were authorized for construction by the 1930 and 1935 Rivers and Harbors Acts to improve commercial navigation at the upper limits on the Savannah River. Section 4 of the Flood Control Act of 1944, authorized the Secretary of the Army to construct, maintain and operate the public park and recreational facilities at water resource development projects under the control of the Army.

In 1979, the last commercial shipment passed through the NSBLD, and maintenance of the navigation channel was discontinued. Beginning in 1979, the lock was operated to allow passage of infrequent non-commercial recreational vessels as well as for migratory fish species. In May 2014, the lock was permanently closed due to concerns about the structural integrity of the lock wall. Although the NSBLD no longer serves commercial navigation, the resulting pool serves water supply users including two municipalities, five industries, and a tree farm. The pool also provides recreation opportunities for boating, fishing, rowing, and powerboat racing.

Due to inadequate funding, USACE has not been able to properly maintain the lock and dam therefore, the current condition of the NSBLD is highly degraded. In 2000, USACE prepared a disposition report recommending removal of the structure due to the lack of commercial navigation. Following release of the report for public comment, local interests expressed their concerns on removal of the NSBLD to their Congressional representatives. As a result, Congress authorized the USACE to repair and rehabilitate the structure, which, upon completion would be conveyed to the City of Augusta/Richmond County, Georgia. Even though the work was authorized, Congress has not appropriated funding to perform the work. Currently, the Federal Government owns the NSBLD and is responsible for operating and maintaining the dam.

1.2 PROPERTY DESCRIPTION

The NSBLD consists of consists of a lock, a dam, a public park and recreational facilities located along the Savannah River in Augusta, Richmond County, Georgia. The public park and recreational facilities occupy approximately 50 acres. In 1987, the USACE leased the 50 acre public park and recreational facilities to the City of Augusta/Richmond County, GA. Since the park is currently, under lease, it will not be addressed in this ECP/Phase One and the NSBLD discussion will consist of the lock and dam.

1.3 LIMITATIONS

This ECP/Phase One report documents the current physical and environmental conditions of the NSBLD. The preparers obtained relevant information from record searches, interviews, and inspections performed on location within a reasonable and practical time frame. Intrusive investigations, such as those involving the collection and analysis of soil or groundwater samples, were not conducted during the ECP/Phase One process. Adjacent properties were observed from the right of way (ROW). Interviews were limited to those listed in Section 7.

2 SURVEY METHOD

2.1 APPROACH AND RATIONALE

This ECP/Phase One report was prepared using technical guidance presented in ASTM E1527-013, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM, 2013); ASTM D6008-96, *Standard Practice for Conducting Environmental Baseline Surveys* (ASTM, 2014); and Army Regulation 200-1, *Environmental Protection and Enhancement* (US Army, 2007). These guidance documents provide a systematic framework for identifying recognized environmental concerns for real property by using an environmental records review process, visual site inspections (VSI), and interviews with persons knowledgeable of present and past uses of the property.

The following available sources of information concerning environmentally significant current and historical uses of the Subject Property were utilized while developing this ECP/Phase One report:

- review of available information in the Army's possession;
- review of reasonably attainable federal, state, and local government records for each adjacent facility where there has been a release of any hazardous substance or any petroleum product, and that is likely to cause or contribute to a release or threatened release of any hazardous substance or any petroleum product at the NSBLD;
- interviews with persons employed with operations of the NSBLD as well as persons employed in the USACE, Savannah District;
- a VSI of the NSBLD, including any structures, equipment, utilities, pipelines, or other improvements on the lock and dam and adjacent properties, noting runoff patterns, evidence of environmental impacts (e.g., stained soil, stressed vegetation, dead or ailing wildlife), and other observations that indicate actual or potential releases of hazardous substances or petroleum products; and
- a VSI of properties adjacent to the NSBLD, as appropriate and to the extent permitted by owners or operators of the properties.

Intrusive investigations such as those involving collection and analysis of soil or groundwater samples were not conducted during this ECP/Phase One process. Existing data on contaminants affecting the following media were considered in the evaluation: air, soil, groundwater, surface water, soil gas, leachate, sludge, and sediment. Common sources of contaminants in these media are solid waste, leakage from aboveground storage tanks (AST's) and underground storage tanks (UST's), petroleum spills, wastewater treatment and discharge, explosive ordnance disposal, and stationary air sources. Common contaminants in these media are hazardous materials and wastes, lead (e.g. lead-based paint [LBP] and lead in drinking water), polychlorinated biphenyls (PCB's), asbestos, pesticides, radon, explosive ordnance disposal waste, biomedical waste, radioactive waste, photochemical waste oil, paints, solvents, and lubricants.

2.2 RECORD REVIEW

Current federal, state, local, and tribal environmental databases were searched. A database report was prepared for the NSBLD and adjoining properties, as identified in Section 1.

The corresponding records review for this ECP/Phase One report focused on activities conducted within the boundaries of the NSBLD. Specific types of records reviewed include documentation concerning environmental conditions of the NSBLD as well as previous environmental assessments and remedial actions. Section 6 lists the references used to prepare this ECP/Phase One report.

2.3 VISUAL SITE INSPECTION

The NSBLD was originally inspected as part of an Asbestos Inspection and Survey and Hazardous Building Material Survey conducted by the USACE, Savannah District in April 2017. In addition to the site inspection conducted as part of the surveys, samples were collected from areas suspected of containing asbestos. Copies of the reports prepared from the above noted surveys are presented in Appendices A and B.

On December 6, 2018, a second VSI was conducted to determine whether any readily apparent environmental conditions warranting concern exist within the NSBLD.

4

2.4 INTERVIEWS

Interviews were conducted with personnel from USACE and the City of Augusta with knowledge of the current and historical environmental conditions of the NSBLD and the locations and nature of environmental activities on adjacent properties. Section 3.2 provides a summary of those interviews, and Section 7 provides a list of people contacted.

2.5 RECONNAISSANCE OF ADJACENT PROPERTIES

The vicinity was inspected on foot and by car to determine if any activities taking place on adjacent properties pose an environmental threat to the NSBLD. Subjects of observation included types of businesses in the area, indications of aboveground or underground storage of chemical or petroleum products, stressed vegetation, and land use practices that might directly affect the NSBLD. Observations were made from the right of way (ROW) and did not include entering buildings or going onto secure areas.

2.6 PROPERTY CLASSIFICATIONS

Representatives from the Office of the Secretary of Defense, the Military Services, and the U.S. Environmental Protection Agency have jointly developed seven environmental categories to describe the environmental condition of a Department of Defense (DoD) property. DoD requires that these classifications be used during property transfer and lease activities, and mandates the use of maps with a specific color for each environmental condition category. After an analysis of the available data, parcels can be classified into one of these categories (ASTM 2010):

- Category 1 (WHITE) Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas)
- *Category 2 (BLUE)* Areas where only a release or disposal of petroleum products and/or their derivatives has occurred (including migration of petroleum products from adjacent areas)

- *Category 3 (LIGHT GREEN)* Areas where a release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
- *Category 4 (DARK GREEN)* Areas where a release, disposal, and/or migration of hazardous substances has occurred and all remedial actions necessary to protect human health and the environment have been taken.
- *Category 5 (YELLOW)* Areas where a release, disposal, and/or migration of hazardous substances has occurred and removal or remedial actions are under way, but all remedial actions have not yet taken place.
- *Category 6 (RED)* Areas where a release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented.
- *Category* 7 (*GRAY*) Areas that are not evaluated or require additional evaluation.

3 SUMMARY OF DATA FOR SUBJECT PROPERTY

3.1 ENVIRONMENTAL SETTING AND SUMMARY OF ENVIRONMENTAL MANAGEMENT INTERVIEWS AND RESEARCH

3.1.1 Location, Description, and Setting

The NSBLD is located in the Savannah River in Richland County, Georgia. The NSBLD is the first dam on the main stem of the Savannah River and is located approximately 187 miles upstream from Savannah, Georgia and thirteen miles downstream from the City of Augusta. The dam is 360 feet long and houses five vertical gates, each 60 feet long. The lock is 56 feet wide and 360 feet long. The dam is operational and the pool levels are maintained through remote operation of the dam spillway gates from a control room at J. Strom Thurmond Dam, some 30 miles north of the NSBLD. The City of Augusta had operated the lock periodically for recreational boat traffic and to provide a means for upstream fish passage during the spring (approximately 90 lock movements per year), but that operation ceased on May 15, 2014.

In 2014, USACE performed a Periodic Assessment and Inspection of the lock and dam. According to the inspection, the current condition of the project is poor. That inspection revealed substantial deterioration of the lock and dam, including numerous structural issues. While not expecting an imminent collapse, USACE chose prudency and closed the lock indefinitely in May 2014, due to significant safety risks to lock operators and potential boaters within the lock chamber. The lock and dam currently reside in a caretaker status

3.1.2 Topography

Elevation at the NSBLD is approximately 108 feet above mean sea level. The area surrounding the lock and dam lies within the 100 year floodplain of the Savannah River.

3.1.3 Geology

NSBLD is located in the Coastal Plain Province, southeast of the Piedmont Province. It is close in proximity to the Fall Line, where strata of the Coastal Plain Province overlie Piedmont basement rocks (Hetrick, 1992). The basement rock consists of undifferentiated

gneisses, schists, granites, and phyllites. Overlying the basement rock in the NSBLD area are the Upper Cretaceous Gallard and Pio Nono Formations as well as the Upper Eocene Tobacco Road Sand Formation. The Gallard and Pio Nono Formations consist of poorly sorted, coarse grained sand with sandy clay and clay (Hetrick, 1992). The Tobacco Road Sand Formation is a poorly sorted, medium to coarse grained sand that is slightly clayey (Hetrick, 1992).

3.1.4 Surface Water

The NSBLD is the lowest dam on the Savannah River at River Mile 187.3, approximately 13 river miles downstream from the city of Augusta in Richmond County, Georgia, and the city of North Augusta in Aiken County, South Carolina.

The South Carolina Department of Health and Environmental Control (SCDHEC) has classified the portion of the Savannah River near the NSBLD as "freshwaters suitable for primary and secondary contact recreation and as a source of drinking water supply after conventional treatment (SCDHEC 2012), suitable for fishing and the survival and propagation of a balanced indigenous aquatic community of fauna and flora and suitable for industrial and agricultural uses (SCDHEC 2014).

Georgia Environmental Protection Division's (GEPD), currently indicates that the main stem Savannah River near the NSBLD is designated for fishing.

3.1.5 Floodplains

The NSBLD is located in the Savannah River. Areas adjacent to lock and dam lie within the 100-year floodplain of the Savannah River.

3.1.6 Wetlands

The USFWS National Wetland Inventory (NWI) map shows the Savannah River as a permanently flooded, unconsolidated bottom, riverine system (R2UBH) downstream of the dam and an impounded, unconsolidated bottom lacustrine system (L1UBHh) just upstream of the dam. The U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS) soils map identifies the river as "water". The land adjacent to the river is mapped as

"Riverview silt loam" to the north and "Toccoa loam" to the south. Upstream of the dam, the river has shallow banks and a narrow wetland fringe that is vegetated with American elm, Chinese privet, elephant's ear, and giant cutgrass. Downstream of the dam, the bank is very steep and is heavily armored with large rip rap.

3.1.7 Climate

The climate at the NSBLD has short mild winters with brief frost and freezing events, snowfall is very rare. Summers are hot and humid with the highest temperatures occurring in July (93°) and the lowest temperatures occurring in January (37°). Average annual rainfall is approximately 43.58 inches. Maximum rainfall generally occurs during the month June with an average of 4.72 inches of rainfall.

3.1.8 Historical and Cultural Resources

Based upon research conducted by the USACE as part of the Savannah Harbor Expansion Project (SHEP) fourteen historic properties are identified near the NSBLD. The lock and dam is one of the properties. Authorized by Congress in 1933 as a Public Works Administration project under President Franklin D. Roosevelt's New Deal, the structure was completed in 1937. The structure consists of a lock chamber, dam, gates, and operation building.

The remaining 13 historic properties near the NSBLD are located primarily in the floodplain of the Savannah River. Three sites represent the remains of nineteenth - twentieth century maritime vessels, one of which is a rear-wheel paddleboat. Two early-mid nineteenth century railroad bridges cross the Savannah River downstream of the 5th Street Bridge. The archaeological remains of three historic settlements (New Savannah, Fort Moore/Savano Town, Hamburg Town) are also with close proximity to the lock and dam. One unknown prehistoric/possible Mississippian mound site has been recorded near the NSBLD as well as a Confederate earthwork. The remaining historic properties represent prehistoric and historic artifact scatters.

3.1.9 Title Search

The NSBLD has been owned continuously by the federal government since 1930s. A title search was not conducted.

3.1.10 Threatened or Endangered Species

The United Sates Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPAC) website (http://ecos.fws.gov/ipac/) indicated several federally listed species potentially within the area. These included a total of 6 federally listed endangered species, 2 federally listed threatened species, and 1 federally listed candidate species as well as over 20 species of birds that are protected by the Migratory Bird Treaty Act. The American bald eagle, which is within the area, is not only protected by the Migratory Bird Treaty Act, but the Bald and Golden Eagle Protection Act, and is also listed in the states of Georgia and South Carolina as threatened. Table 1 identifies the species that have been listed by the USFWS as occurring or possibly occurring within the NSBLD area.

Table 1-1: Federal Endangered, Threatened and Candidate Species Likely to Occur in the NSBLD Study Area					
Category	Common Name	Scientific Name	Federal Status	Critical Habitat Designated Y/N	
Birds	Red-cockaded Woodpecker	Picoides borealis	Endangered	Ν	
Birds	Wood Stork	Mycteria americana	Threatened	N	
Fishes	Atlantic Sturgeon	Acipenser oxyrinchus oxyrinchus	Endangered	Yes (NOAA NMFS)	
Fishes	Shortnose Sturgeon	Acipenser brevirostrum	Endangered	Ν	
Flowering Plants	Harperella	Ptilimnium nodosum	Endangered	Ν	
Flowering Plants	Relict Trillium	Trillium reliquum	Endangered	Ν	
Flowering Plants	Smooth Coneflower	Echinacea laevigata	Endangered	N	
Mammals	Northern Long- eared Bat	Myotis septentrionalis	Threatened	N	
Reptiles	Gopher Tortoise	Gopherus polyphemus	Candidate	N	

The area downstream of the NSBLD has been designated critical habitat for Atlantic Sturgeon from the National Marine Fisheries Service (NMFS). The critical habitat directly downstream of the NSBLD is defined as "hard bottom substrate (*e.g.*, rock, cobble, gravel,

limestone, boulder, etc.). for settlement of fertilized eggs, refuge, growth, and development of early life stages;" The gravel bar directly below the NSBLD would be defined as critical habitat.

3.1.11 Permits and Other Requirements

Record searches of federal and state agencies did not reveal any permits associated with the NSBLD.

3.1.12 Waste Management

A review of federal, state local, and tribal environmental databases indicate that the NSBLD is listed as a Resource Conservation and Recovery Act (RCRA) Conditionally Exempt Small Quantity Generator (CESQG) of hazardous waste for Waste Code D008/ Waste Name: Lead. The RCRA ID number assigned to the NSBLD is GAR000045997.

3.1.13 Storage Tanks

Kathleen Campbell-Miles of the USACE, Savannah District, stated that a former UST had been removed from the NSBLD under a contract with Anderson Columbia in the 1990's. A copy of the closure report could not be located, therefore William Logan of the Georgia Environmental Protection Division (GA EPD) Underground Storage Tank (UST) Program was contacted for a copy of the closure report submitted by Anderson Columbia. Mr. Logan, conducted a search of GA EPD's UST database and was not able to locate a copy of the report. According to Mr. Logan, the UST must have been a non-registered UST as there is not any information on the UST in GA EPD records. The UST was not identified in the Environmental Data Resources, Inc. (EDR) report prepared for the NSBLD.

During the April 2017 survey, one above ground storage tank containing approximately 250 gallons of diesel fuel was noted as being present at the facility.

3.1.14 Oil/Water Separators

On the basis of historical use there is no indication that oil/water separators have been used at the NSBLD.

3.1.15 Asbestos-Containing Material

In April 2017, an asbestos inspection and survey was performed at the lock and dam. The following suspect miscellaneous materials were found to contain or were assumed to contain asbestos:

- Roofing Materials: Remnants of old black tar-like roofing materials in the vicinity of the
 newer rubber roof contain asbestos. Silver paint on flashing cement contains asbestos.
 Caulking materials at the top of the metal flashing at the block stairwell wall and on the
 adjacent roof curb cap contains asbestos. The new roofing membranes are presumed to
 contain asbestos. The roofing membranes were not sampled to prevent roof leaks. The
 membranes are white rubber material. The roofing membranes should be sampled to
 confirm asbestos content prior to being disturbed during renovation/demolition
 activities.
- Exterior Window Frame Caulking: Older looking exterior caulking material between the metal window frames and the concrete walls contains asbestos.
- Flange Gaskets: Spare flange gaskets found on the first floor of the Control building contain asbestos. Flange gaskets within mechanical piping systems, generator, pumps and other equipment are presumed to contain asbestos.
- Brake Shoes: Brake shoes associated with gate lift motors are presumed to contain asbestos.

3.1.16 Hazardous Materials

In 2013 the target property submitted a GA Tier 2 report for the storage of the chemical, Quintolubirc 822-300 Hydraulic Fluid. The maximum and average daily amount of the chemical reported on site for 2013 was 18,326 pounds.

In April 2017, a hazardous material survey was performed to identify hazardous materials at the lock and dam. The quantities identified below are field estimates.

- Light Count: There are approximately 30 lights present containing mercury vapor bulbs.
- Lead Building Materials: Lead joints are used in some sections of older electrical wiring. Approximately 20 two foot long sections are assumed to exist.

- Compressed Refrigerant Gas: One window air conditioner was located in the building. This equipment is assumed to contain refrigerant gas that should be recovered prior to disposal.
- Fire Extinguishers: Two portable fire extinguishers were located in the building.
- Transformers: One small transformer was located within an electrical cabinet in the building.
- Lead-Based Paint: Eight paint chip samples were collected from painted concrete wall and ceiling surfaces and submitted for analysis. Many layers of paint exist in these areas. Most samples contained varying levels of lead, however only one contained lead above the EPA/HUD defined definition for lead-based paint of 0.5% by weight. Since lead was found in the paint samples, OSHA worker protection rules apply to disturbance of the painted materials. Other Federal and/or State regulations may apply and any future work must adhere to all applicable regulations. The samples collected did not constitute a full lead-based paint survey and were collected for informational purposes only. Approximately 9000 square feet of painted concrete walls and ceilings were located. Metal surfaces quantities were not calculated as they are expected to be recycled.
- Motor Oil: Approximately three gallons of motor oil is assumed to exist within the emergency generator. One partially filled 55 gallon waste oil drum was located in the facility.
- Hydraulic Oil: Approximately 500 gallons of hydraulic oil is assumed to exist within the mechanical equipment used to operate gates and in 3 five gallon containers.
- Antifreeze Solution: Approximately 10 gallons of antifreeze is assumed to exist within the emergency generator.
- Automotive Batteries: Two automotive style batteries were located adjacent to the emergency generator.

3.1.17 Polychlorinated Biphenyls

During the hazardous material survey performed in April 2017, a small transformer was located within an electrical cabinet in the lock control building. The transformer was not tested for PCBs.

3.1.18 Pesticides

There is no record of pesticides being used at NSBLD.

3.1.19 Munitions and Explosives of Concern

On the basis of historical use, there is no indication that munitions or explosives have been used or stored at the NSBLD.

3.1.20 Medical/Biohazardous Waste and Silver Recovery

On the basis of historical use, there are no indications that medical/bio hazardous waste or silver were stored at the NSBLD.

3.1.21 Radioactive Materials

On the basis of historical use and interviews, there are no indications radioactive materials were stored at NSBLD.

3.1.22 Radon

Based on the location of the NSBLD there is no reason to believe that radon gas is present at the NSBLD.

3.1.23 Mold

No indications of mold were observed at the NSBLD.

3.1.24 Vapor Intrusion

Record searches of federal and state agencies did not reveal any releases of hazardous substances that could cause vapor intrusion resulting in exposure at the NSBLD.

3.1.25 Spills and Releases

Record searches and interviews with persons with knowledge of the site did not reveal any spills or releases at the NSBLD.

3.1.26 Other

Based on the interviews conducted with persons from USACE, Savannah District there are no other known environmental issues that could impact the NSBLD.

3.2 RECORDS REVIEW

ASTM D6008-96 (2014) and ASTM E1527-13 requirements include a search of available government databases. Section 4 provides a summary of the database report. Appendix C presents a full copy of the EDR report.

3.3 VISUAL SITE INSPECTION

A VSI of the NSBLD was conducted on December 6, 2018. The property was inspected for indications of storage, use, or release of potentially hazardous materials. The VSI of the NSBLD and adjacent properties is summarized below. Appendix C provides photographs taken during the VSI.

During the VSI of the NSBLD two hydraulic systems were observed. The first hydraulic system was used to control the lock gates. Hydraulic fluid is still present in the piping. It is estimated that approximately 600 gallons of hydraulic fluid is contained in the system. The second hydraulic system was used to operate Gates 2 and 3 of the lock and dam. Hydraulic fluid is still present in the system. The volume is estimated to be approximately 700 gallons.

An AST containing diesel fuel is located outside the lock control room. The AST contains approximately 275 gallons of diesel, and is used to power the emergency generator in the event of a power loss (**Photo 1**).

The original hydraulic oil tank is still located inside the lock and dam control room. It is believed that the tank has been emptied and cleaned of residual fluid. A new hydraulic fluid tank is located in the control room. The new tank contains approximately 85 gallons of hydraulic fluid (**Photos 2 & 3**).

Terracotta tile is present on the first and second floors of the lock and dam control room. Each floor is covered with approximately 800 square feet of tile (50ft x 16ft). The potential for asbestos is present as some terracotta tiles are known to contain asbestos (**Photo 4**).

A small flammable materials storage cabinet is located on the first floor of the lock and dam control room. The cabinet contains various materials including brake cleaner, paint thinner, pipe thread compound and cable clean (**Photo 5**).

A 55-gallon drum identified as reclaimed oil is located on the first floor adjacent to a hydraulic pump. A five gallon bucket of hydraulic oil is also present (**Photo 6**).

The basement floor of the lock control building contains piping for the original hydraulic system. It is not known if piping contains hydraulic fluid. Two five gallon buckets of industrial grade concrete and asphalt cleaning compound are located on the basement floor (**Photos 7 & 8**).

Tanks are located in the stair way headspace of each floor. It is not known of the tanks are empty or what function they served (**Photo 9 & 10**).

An emergency generator is located on the second floor. It is assumed that motor oil and antifreeze are located within the emergency generator. The generator is started with two automotive batteries located adjacent to the generator (**Photos 11 & 12**).

An electrical control cabinet is located on the second floor. The date on the cabinet and its components is 1987. Since PCBs were banned for use in the United Sates in 1979, it is unlikely that any transformer located inside the control panel would contain PCBs (**Photo 13**).

Inspection of each of the hydraulic housings located on top of the dam control gates indicate leaking. The floor of each housing unit is covered with hydraulic oil. Absorbent towels have been placed in the housing in an attempt to absorb the fluid (**Photos 14 & 15**).

Flood lights are located along the walkway across the top of the dam. The type of blub used in the flood lights is not known however, several cases of sodium vapor bulbs were located on top of storage cabinets on the first floor of the lock and dam control building (**Photos 16-18**).

The NSBLD Park adjoins the lock and dam to the north. The park contains picnic pavilions, restroom facilities and open recreational areas. It is not known if the restroom facilities are operational as the facilities were locked. The park is currently under lease to the City of Augusta/Richmond County Georgia. No items of concern were noted. Areas adjoining the

NSBLD Park to the north are considered agricultural, with the exception of Phinizy Swamp Nature Park. Phinizy Swamp Nature Park is a 1,100 acre nature park. The park contains wetlands and woodlands. Trees located in the nature park include bald cypress, loblolly and longleaf pines. Birds commonly found at Phinizy Swamp include: red-shouldered hawks, great blue herons, sora ducks, wood duck and bald eagles. Other wildlife commonly found in the park include frogs, toads, water moccasin, pigmy rattlesnakes, copperhead rattlesnakes, beavers, muskrats, turtles, and dragonflies. No items of concern were noted on the properties north of the NSBLD Park (**Photos 19 & 20**).

Augusta Regional Airport is located east of the NSBLD. The airport was not accessed and no items of concern were noted from the road.

The adjacent property to the south and west of the lock and dam are agricultural. No items of concern were noted (**Photos 21-24**)

Photographs from the visual site inspection are contained in Appendix C.

3.4 ADDITIONAL INTERVIEWS

No one interviewed in connection with this report identified any environmental concerns other than those discussed in the relevant sections of this report. Section 7 provides a complete list of interviewed persons.

4 SUMMARY OF DATA FOR SUBJECT AND ADJACENT PROPERTIES

4.1 RECORDS REVIEW AND INTERVIEW RESULTS

A review of reports for the NSBLD and adjacent properties revealed an asbestos inspection and survey was performed on the lock and dam in April 2017. The report noted that that several locations in the building contained asbestos. In April 2017, a hazardous materials survey was also performed at the lock and dam. Several items containing hazardous materials were identified during the survey. Copies of the asbestos survey and hazardous materials survey are contained in Appendices A and B.

An interview with USACE, Savannah District personnel with historical knowledge if the lock and dam indicated that a UST was removed from the lock and dam under a contract with Anderson Columbia in 1990's. A copy of the closure report could not be located, therefore Mr. William Logan of the Georgia Environmental Protection Division (GA EPD) Underground Storage Tank (UST) Program was contacted for a copy of the closure report. Mr. Logan, conducted a search of GA EPD's UST database and was not able to locate a copy of the report. According to Mr. Logan, the UST must have been a non-registered UST as there is not any information on the UST in GA EPDs records

4.2 DATABASE SEARCH FINDINGS

Environmental Data Resources, Inc. (EDR) prepared a radius map report for the NSBLD in October 2018. The report consists of a computerized search of federal, state, local, and tribal environmental databases at standard search distances for areas up to 1 mile from the NSBLD to identify documented potential sources of contamination.

The EDR report identified three sites at the NSBLD. Sites A1 and A2 identify the dam as a Resource Conservation and Recovery Act (RCRA) Conditionally Exempt Small Quantity Generator (CESQG) of hazardous waste for Waste Code D008/ Waste Name: Lead. The RCRA ID Number for the NSBLD is: GAR000045997. Site A3 identifies the lock and dam as having submitted a GA Tier 2 report for the storage of the chemical, Quintolubirc 822-300 Hydraulic Fluid. The maximum and average daily amount of the chemical reported on site for 2013 was 18,326 pounds. No other findings were listed for the target property. The database search report is included in Appendix D.

4.2.1 Orphan Sites

The databases were also searched for records of orphan sites, which contain no accurate, sitespecific location information and identify sites only by their ZIP codes. The EDR database report identified one site. The site is identified as Unknown Lock and Dam Bridge Fire at Old Lock and Dam Road. The site was identified as a spill. No other information could be obtained on the site.

4.3 SANBORN MAPS, CITY DIRECTORIES, AND LIENS REVIEW

There were no Sanborn maps, city directories, or title searches conducted on the Subject Property due to the property having been owned by the Army since 1930's.

4.4 WATER WELL SEARCH

The EDR report identified one water wells within one mile of the NSBLD. The well is listed in table 4-1 below.

Database Search ID	Location	Well ID	Install Date	Depth
1	~0.75 miles W	USGS40000262835	Unknown	220 feet

 Table 4-1 (USGS Water Wells)

4.5 HISTORICAL AERIAL PHOTOGRAPH AND TOPOGRAPHIC MAP REVIEW

Historical aerial photographs and installation maps were examined for obvious land use practices that could influence the condition of the NSBLD. The findings from the review of the aerial photographs and maps are detailed in this section. Appendix E provides a copy of each available aerial photograph or topographical map.

1938 Aerial Photograph. This aerial photograph depicts the NSBLD. The dwellings for the lock and dam tender can be seen lower left of the site boundary. The land surrounding the lock and dam is unimproved or agricultural.

1941 Aerial Photograph. This aerial photograph depicts the clearing of timber on a portion of the property north of the lock and dam. The remaining area is unchanged.

1957 Aerial Photograph. Some additional roads are visible on this aerial photograph. Land use to the south of the NSBLD shows activity, but no signs of construction.

1964 Aerial Photograph. This aerial photograph depicts development in the area that is now the NSBLD Park.

1977 Aerial Photograph. The area north of the NSBLD Park has been planted in timber. The remaining area is unchanged.

1981 Aerial Photograph. In the left side of the photograph, the edge of a runway for Augusta Regional Airport can be seen.

1988 Aerial Photograph. No significant changes between the 1981 and 1988 can be identified. The photograph is of poor quality.

1993 Aerial Photograph. The former lock tender's dwelling are no longer depicted on the photograph. Additional development can be seen in the NSBLD Park.

2007 Aerial Photograph. Timber has been harvested in the area north of the NSBLD Park. The remaining area is unchanged.

2010 Topographic Map. No significant changes between the 2007 and 2010 can be identified.

2013 Topographic Map. The additional development is depicted in the south west portion of photograph. No significant changes are noted.

2017 Topographic Map. No significant changes can be identified between the 2013 and 2017 photographs..

This page intentionally left blank

5 CONCLUSIONS

5.1 ENVIRONMENTAL CONDITION OF PROPERTY

On the basis of the findings within this ECP/Phase One report, the NSBLD has been given an ECP classification of 1 (WHITE), which indicates areas where no release, disposal, of hazardous substances or petroleum products (including no migration of those substances from adjacent areas). Table 5-1 below summarizes ECP findings. Figure 5-1 depicts the ECP classification on a map.

Table 5-1Summary of Environmental Condition of Subject Property

Subject Property	Environmental Condition of Property
New Savannah Bluff Lock and Dam	1 (WHITE)

ECP definitions are derived from the Community Environmental Response Facilitation Act Guidance (Public Law 102-426, 1992), the Base Development and Realignment Manual (DoD 2006), Office of Solid Waste and Emergency Response Directive 9345.0-09 (USEPA 1994), and ASTM D5746 (ASTM 2010).

DoD ECP Classification Codes

- Category 1 (WHITE): Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of those substances from adjacent areas).
- Category 2 (BLUE): Areas where only a release or disposal of petroleum products and/or their derivatives has occurred (including migration of petroleum products from adjacent areas).
- Category 3 (LIGHT GREEN): Areas where a release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
- Category 4 (DARK GREEN): Areas where a release, disposal, and/or migration of hazardous substances has occurred and all remedial actions necessary to protect human health and the environment have been taken.
- Category 5 (YELLOW): Areas where a release, disposal, and/or migration of hazardous substances has occurred and removal or remedial actions are under way, but all required remedial actions have not yet taken place.
- Category 6 (RED): Areas where a release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented.
- Category 7 (GRAY): Areas that are not evaluated or require additional evaluation.

5.1.1 Environmental Remediation Sites

The EDR report did not identify any current or ongoing environmental remediation sites at the NSBLD.

5.1.2 Storage, Release, or Disposal of Hazardous Substances

There is no evidence that hazardous substances are currently stored, released, or disposed of at the NSBLD in excess of reportable quantities specified at Title 40 of the *Code of Federal Regulations* (SFR) Part 373.

5.1.3 Petroleum and Petroleum Products

There is historical knowledge that a UST was located at the NSBLD. This tank was removed in 1990s. A copy of the closure report could not be located. There is evidence that POL is stored at the NSBLD.

5.1.4 Polychlorinated Biphenyls

There is no evidence that PCB-containing equipment is located or was previously located at the NSBLD.

5.1.5 Asbestos-Containing Material

An inspection for suspect ACM was conducted in April 2017 at the NSBLD. Several materials were found to contain or assumed to contain asbestos.

5.1.6 Lead-Based Paint

Since the NSBLD was constructed in 1937 there is a risk of lead-based paint. Sampling of the paint was conducted in April 2017. Lead was found to be present.

5.1.7 Radiological Materials

There is no evidence that radiological materials were used, stored, or are located on the NSBLD.

5.1.8 Radon

The movement of radon gas into the NSBLD is not considered to be a significant problem due to its location. Although uranium is ubiquitous in nature, concentrations in the area are not high enough to pose a health risk. The Environmental Protection Agency (EPA radon zone for Richmond County is 2, indicating average indoor levels > = 2 p Ci/L and < = 4 p Ci/L.

5.1.9 Munitions and Explosives of Concern

On the basis of historical use, there are no indications that munitions and explosives of concern are located at the NSBLD.

5.1.10 Other Property Conditions

No other property conditions were observed or reported within the NSBLD that would impact the ECP rating.

5.2 ADJACENT PROPERTY CONDITIONS

No adjacent property conditions that would impact the ECP rating of the NSBLD were observed or reported.

5.3 ENVIRONMENTAL REMEDIATION AGREEMENTS

There are no environmental remediation orders or agreements applicable to the NSBLD.

This page intentionally left blank

6 REFERENCES

- ASTM (ASTM International). 2010. Standard Classification of Environmental Condition of Property Area Types for Defense Base Closure and Realignment Facilities. ASTM D5746-98(2010). ASTM International, West Conshohocken, PA.
- ASTM (ASTM International). 2013. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. ASTM E1527-13. ASTM International, West Conshohocken, PA.
- ASTM (ASTM International). 2014. *Standard Practice for Conducting Environmental Baseline Surveys*. ASTM D6008-96(2014). ASTM International, West Conshohocken, PA.
- EDR (Environmental Data Resources, Inc.) 2017. *The EDR Summary Radius Map Report with Geocheck.* Savannah Lock and Dam 1853 Lock and Dam Road, Augusta, Georgia. Inquiry number 5449142.2s. Environmental Data Resources, Inc., Shelton, CT.
- EPA (Environmental Protection Agency). 2017. Online Attainment / Non-Attainment Green Book. <u>https://www.epa.gov/green-book</u>. Accessed December 2017.
- FEMA (Federal Emergency Management Agency). 2017. Online Flood Zone Maps. <u>https://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464</u> <u>aa0fc34eb99e7f30</u>. Accessed December 2017.
- GNAHRGIS. 2017. Georgia's Natural, Archeological, and Historic Resources GIS. Online maps. <u>https://www.gnahrgis.org/gnahrgis/index.do</u>. Accessed December 2018.
- Hetrick, John H. 1992. A Geologic Atlas of the Wrens-Augusta Area. Georgia Geologic Survey. Atlanta, GA.
- USFWS (US Fish and Wildlife Service). 2017. GIS Shapefiles downloaded for wetland delineation. <u>https://www.fws.gov/wetlands/Data/Data-Download.html</u>. Accessed December 2018.

7 PERSONS CONSULTED

Cambell-Miles, Kathleen. USACE, Savannah District. Savannah, GA.

Hyatt, Scott. USACE, Savannah District J Strom Thurmond Project. Augusta, GA.

Cliett, Michael USACE, Savannah District J Strom Thurmond Dam. Augusta, GA

Logan, William, Georgia Environmental Protection Division. Underground Storage Tank Program. Atlanta, GA.

Bennett, Darrell. City of Augusta/Richmond County. Augusta, GA

This page intentionally left blank

8 ACRONYMS AND ABBREVIATIONS

ACM	asbestos-containing materials
AST	above ground storage tank
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DoD	Department of Defense
DPW	Directorate of Public Works
ECP	Environmental Condition of Property
EDR	Environmental Data Resources, Inc.
EOD	explosives ordnance disposal
EPA	US Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GIS	geographic information system
IRP	installation restoration program
LBP	lead-based paint
msl	mean sea level
NFA	no further action
PCB	polychlorinated biphenyl
pCI/L	picocuries per liter
RCW	Red Cockaded Woodpecker
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
ROW	right of way
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service
USGS	US Geologic Survey
UST	underground storage tank
VSI	visual site inspection

This page intentionally left blank

FIGURES





APPENDIX A

2017 Asbestos Inspection and Survey Report



Asbestos Survey

New Savannah Bluff Lock & Dam Augusta, Georgia

Prepared by Timothy A. Jones



The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents. **Asbestos Survey**

April 2017

New Savannah Bluff Lock & Dam Augusta, Georgia

Prepared by: Timothy A. Jones

Final report

Prepared for: U.S. Army Corps of Engineers Savannah District

Asbestos	Inspection Report1-4
List of Ta	ubles
Table 1.	Identified Homogeneous Areas
Table 2.	Suspect ACM Samples5-7
Table 3.	Material characterization and assessment

List of Figures

Figure 1.	Asbestos Sample Locations, Basement and Tunnel9
Figure 2.	Asbestos Sample Locations, First Floor10
Figure 3.	Asbestos Sample Locations, Second Floor11
Figure 4.	Asbestos Sample Locations, Roof12

Appendices

Appendix A.	Laboratory Report, Bureau Veritas North America, Inc1	3-26
Appendix B.	Sample Chain of Custody Forms2	27-29
Appendix C.	Certifications and Accreditations	30-34

Asbestos Inspection Report

Introduction

Scope of the Investigation

This report documents the asbestos inspection and survey of the New Savannah Bluff Lock & Dam in Augusta; Georgia conducted on 26 April 2017 by Savannah District US Army Corps of Engineers employee Tim Jones. The purpose of this survey was to locate asbestos containing materials that will need to be addressed prior to the disposition of the building. The survey was conducted in general accordance with the regulatory guidelines in the Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763 Subpart E Sections 763.80-763.88) and "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Purple Book) (EPA publication number 560/5-85-024).

Background

The lock and dam is a concrete structure constructed in the late 1930s timeframe. The structure consists of a dam, a lock and a concrete control/operations building.

Description of study

Investigation

All accessible areas of the structure were visually inspected for suspected asbestos containing materials. A structure walk-through was completed to determine homogeneous areas of building materials present. Bulk samples were collected from homogeneous areas of all suspect ACM's that were not assumed to be asbestos. Non-destructive sampling techniques were followed during the inspection process, therefore asbestos containing materials may exist in locations inaccessible during the inspection. The following table, Table 1, describes the homogeneous areas investigated in this inspection.

Homogeneous Area	Туре	Sample Numbers	ACM, Non-ACM, Non-Suspect
Structural concrete	Miscellaneous	Not Sampled	Non-suspect
Metal catwalks, gates and equipment	Miscellaneous	Not Sampled	Non-suspect
Metal doors and windows	Miscellaneous	Not Sampled	Non-suspect
Window glazing compound	Miscellaneous	Samples 1, 2, 3, 14, 15, 39	Non-ACM
Newer white caulking material	Miscellaneous	Samples 7, 8, 12, 13, 26	Non-ACM
Floor expansion joint filler	Miscellaneous	Samples 9, 10, 11	Non-ACM
Older cloth wiring insulation	Miscellaneous	Samples 16, 17, 18	Non-ACM
Cork duct insulation and mastic	TSI	Samples 21, 22, 23	Non-ACM
Duct insulation debris	TSI	Samples 24, 25	Non-ACM
Wall expansion joint filler/caulking	Miscellaneous	Samples 27, 28, 40	Non-ACM
Fiberboard window trim	Miscellaneous	Samples 29, 30	Non-ACM
Silver roof coating	Miscellaneous	Samples 35, 36	Non-ACM
Rubber roof tape and adhesive	Miscellaneous	Samples 41, 42	Non-ACM
Exterior window frame caulking material	Miscellaneous	Samples 4, 5, 6	ACM
Flange gaskets	Miscellaneous	Samples 19, 20	ACM
Silver paint on flashing cement	Miscellaneous	Samples 31, 32	ACM
Caulking material on roof flashing	Miscellaneous	Samples 33, 34	ACM
Roofing tar/flashing cement remnant	Miscellaneous	Samples 37	АСМ
Brake shoes	Miscellaneous	Not Sampled	Assumed ACM
Roofing materials	Miscellaneous	Not Sampled	Assumed ACM

TABLE 1IDENTIFIED HOMOGENEOUS AREAS

The bulk samples were analyzed by Bureau Veritas North America, Inc. The laboratory is accredited by the National Voluntary Laboratory Accredited Program (NVLAP Accreditation sponsored by the National Institute of Standards and Technology (NIST)). A copy of their accreditation certificate is included in Appendix C. The samples were analyzed by the accepted method of polarized light microscopy (PLM) using EPA's "Methods for the Determination of Asbestos in Bulk Materials", EPA/600/R-93/116. A copy of the laboratory's analytical report is included in Appendix A.

In compliance with the AHERA regulations, material is considered an Asbestos Containing Material (ACM) when it contains <u>greater than</u> one percent asbestos. Likewise, in this report, any material containing concentrations <u>greater than</u> one percent asbestos will be considered "positive". Occasionally, materials containing less than one percent asbestos, or not sampled, are assumed to be a "positive" asbestos containing material at the discretion of the inspector. A narrative discussion of the AHERA ACM types (i.e., Thermal Systems Insulation (TSI), Miscellaneous and Surfacing Materials) found in the building is included in this report where relevant. Bulk sample information appears on Table 2. Material characterization and quantities are listed in Table 3. Quantities listed in Table 3 are rough field estimates only and must be confirmed by contractors prior to beginning work. The approximate location where each bulk sample was obtained is shown on the building floor plans, which appear as Figures. Samples testing negative for asbestos are indicated on the floor plan Figures with their numbers enclosed in circles.

Conclusions

Thermal Systems Insulation (TSI)

TSI is insulation material applied to pipes, fittings, tanks, ducts, or on other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

No asbestos containing TSI was located in the building.

Miscellaneous Materials

Miscellaneous materials include building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and do not include surfacing or TSI. In the past, there were a great number of miscellaneous building materials that had asbestos fibers added to them during the manufacturing process to increase durability and fireproofing qualities. The following suspect miscellaneous materials were found to contain or were assumed to contain asbestos:

a. *Roofing Materials:* Remnants of old black tar-like roofing materials in the vicinity of the newer rubber roof contain asbestos. Silver paint on flashing cement contains asbestos. Caulking materials at the top of the metal flashing

at the block stairwell wall and on the adjacent roof curb cap contains asbestos. The new roofing membranes are presumed to contain asbestos. The roofing membranes were not sampled to prevent roof leaks. The membranes are white rubber material. The roofing membranes should be sampled to confirm asbestos content prior to being disturbed during renovation/demolition activities. – (See tables 1 and 2 for specific information and Figures for sample locations)

- *Exterior Window Frame Caulking:* Older looking exterior caulking material between the metal window frames and the concrete walls contains asbestos.
 (See tables 1 and 2 for specific information and Figures for sample locations)
- *c. Flange Gaskets:* Spare flange gaskets found on the first floor of the Control building contain asbestos. Flange gaskets within mechanical piping systems, generator, pumps and other equipment are presumed to contain asbestos. (See tables 1 and 2 for specific information and Figures for sample locations)
- *d. Brake Shoes:* Brake shoes associated with gate lift motors are presumed to contain asbestos. (See tables 1 and 2 for specific information and Figures for sample locations)

Surfacing Material

Surfacing Material is friable material that is sprayed on, troweled on, or otherwise applied to surfaces for decorative or other purposes.

No asbestos containing Surfacing Materials were located in the building.

TABLE 2SUSPECT ACM SAMPLES

FIELD ID	DESCRIPTION	SAMPLE LOCATION	ASBESTOS TYPE & %
NSB-E-1	Window glazing compound	Control building, exterior, between window glass and metal frame	No Asbestos Detected (PLM)
NSB-E-2	Window glazing compound	Control building, exterior, between window glass and metal frame	No Asbestos Detected (PLM)
NSB-E-3	Window glazing compound	Control building, exterior, between window glass and metal frame	No Asbestos Detected (PLM)(TEM)
NSB-E-4	Older looking white caulking material	Control building, exterior, between metal window frames and concrete walls	3% Chrysotile (PLM)
NSB-E-5	Older looking white caulking material	Control building, exterior, between metal window frames and concrete walls	3% Chrysotile (PLM)
NSB-E-6	Older looking white caulking material	Control building, exterior, between metal window frames and concrete walls	4% Chrysotile (PLM) 0.85% chrysotile (TEM)
NSB-E-7	Newer looking white caulking material	Control building, exterior, in concrete wall expansion joints	No Asbestos Detected (PLM)
NSB-E-8	Newer looking white caulking material	Control building, exterior, in concrete wall expansion joints	No Asbestos Detected (PLM)
NSB-E-9	Expansion joint filler	Exterior, concrete walkway beside lock	No Asbestos Detected (PLM)
NSB-E-10	Expansion joint filler	Exterior, concrete walkway beside lock	No Asbestos Detected (PLM)
NSB-E-11	Expansion joint filler	Exterior, concrete walkway beside lock	No Asbestos Detected (PLM)
NSB-1-12	Newer looking white caulking material	Control building, first floor, in concrete wall expansion joints	No Asbestos Detected (PLM)
NSB-1-13	Newer looking white caulking material	Control building, first floor, in concrete wall expansion joints	No Asbestos Detected (PLM)(TEM)
NSB-1-14	Window glazing compound	Control building, first floor, between glass and door	No Asbestos Detected (PLM)
NSB-1-15	Window glazing compound	Control building, first floor, between glass and door	No Asbestos Detected (PLM)(TEM)
NSB-B-16	Wiring insulation	Control building, basement tunnel, on older cloth wrapped electrical wiring	No Asbestos Detected (PLM)

NSB-R-35	Silver roof coating	Control building, roof, on block wall below copper roof	No Asbestos Detected (PLM)
NSB-R-34	Caulking material	Control building, roof, at top of metal flashing at stairwell wall	2% Chrysotile (PLM) 0.9% chrysotile (TEM)
NSB-R-33	Caulking material	Control building, roof, at top of metal flashing at stairwell wall	2% Chrysotile (PLM)
NSB-R-32	Flashing cement	Control building, roof, between roof and stairwell wall	Silver paint 3% Chrysotile, flashing cement NAD (PLM)
NSB-R-31	Flashing cement	between roof and stairwell wall	Chrysotile, flashing cement NAD (PLM)
		Control building, roof,	Silver paint 3%
NSB-2-30	Fiberboard	trim around window	(PLM)
NSB-2-30	Fiberboard	Control building, second floor,	No Asbestos Detected
NSB-2-29	Fiberboard	trim around window	(PLM)
	· · ·	Control building, second floor,	No Asbestos Detected
NSB-2-28	Expansion joint filler	Control building, second floor, in concrete wall expansion joint	No Asbestos Detected (PLM)
	. ,	in concrete wall expansion joint	(PLM)
NSB-2-27	Expansion joint filler	Control building, second floor,	No Asbestos Detected
	caulking material	in concrete wall expansion joint	(PLM)
NSB-2-26	Newer looking white	Control building, second floor,	No Asbestos Detected
		material on ductwork	(PLM)
NSB-2-25	Insulation debris	remnants of white friable	No Asbestos Detected
		material on ductwork Control building, second floor,	
NSB-2-24	Insulation debris	remnants of white friable	(PLM)
	Inculation debuie	Control building, second floor,	No Asbestos Detected
	with mastics	vertical ductwork	(PLM)
NSB-2-23	Cork duct insulation	Control building, second floor,	No Asbestos Detected
NSB-2-22	with mastics	vertical ductwork	(PLM)
	Cork duct insulation	Control building, second floor,	No Asbestos Detected
NSB-2-21	with mastics	Control building, second floor, vertical ductwork	(PLM)
100-1-20	Cork duct insulation	spare gasket on shelf	No Asbestos Detected
NSB-1-20	Flange gasket	Control building, first floor,	45% Chrysotile (PLM)
NSB-1-19	Flange gasket	Control building, first floor, spare gasket on shelf	45% Chrysotile (PLM)
NOD-D-10	Wiring insulation	tunnel, on older cloth wrapped electrical wiring	(PLM)
NSB-B-18	Wiring inculation	Control building, basement	No Asbestos Detected
		wiring	(PLM)
NSB-1-17	Wiring insulation	Control building, first floor, on older cloth wrapped electrical	No Asbestos Detected

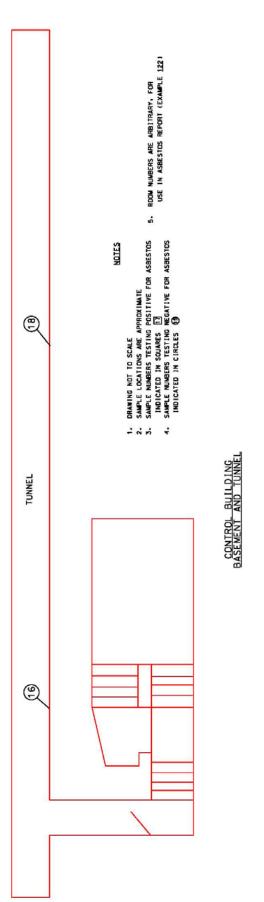
NSB-R-36	Silver roof coating	Control building, roof, on block wall below copper roof	No Asbestos Detected (PLM)
NSB-R-37	Roofing tar/flashing cement	Control building, roof, small remnant at newer rubber roof	5% Chrysotile (PLM)
NSB-R-38	Roofing tar/flashing cement	Control building, roof, small remnant at newer rubber roof	No Asbestos Detected (PLM)
NSB-R-39	Window glazing material	Control building, roof access door	No Asbestos Detected (PLM)
NSB-1-40	Expansion joint filler	Control building, First floor, joint in concrete wall	No Asbestos Detected (PLM)(TEM)
NSB-R-41	Rubber tape & adhesive	Dam, on center of metal roof above hydraulic gate actuator	No Asbestos Detected (PLM)
NSB-R-42	Rubber tape & adhesive	Dam, on center of metal roof above hydraulic gate actuator	No Asbestos Detected (PLM)

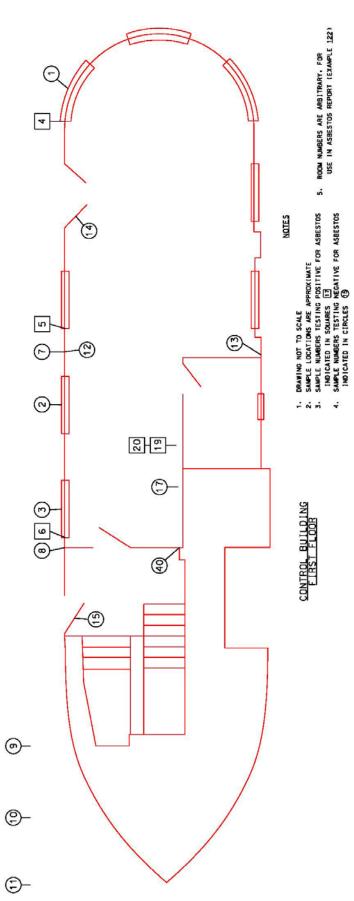
Samples testing positive for asbestos indicated in **BOLD** type

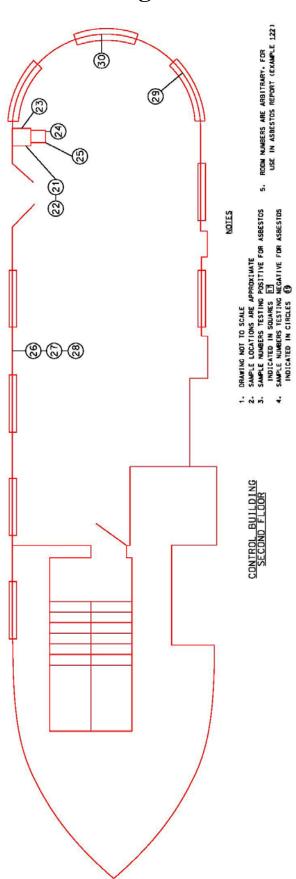
NAD = No Asbestos Detected

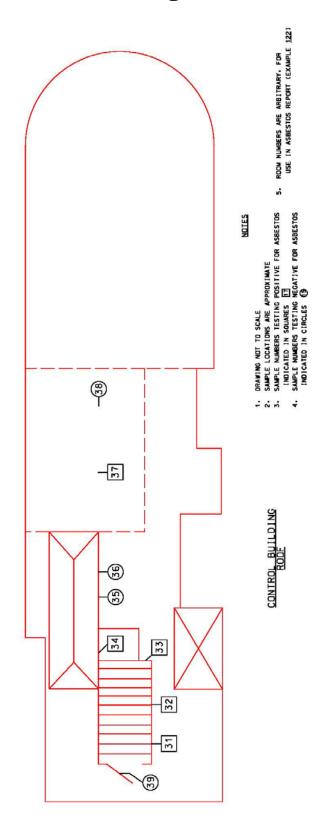
TABLE 3
MATERIAL CHARACTERIZATION AND ASSESSMENT

Homogeneous Area		Functional Space	Characteristics			Assessment		
Description	Туре		Asbestos Yes/No/Presumed	Quantity	Friability	Condition	Disturbance Potential	Accessibility
Exterior window frame caulking material	Miscellaneous	Exterior	Yes	700 L.F.	Non-Friable	Damaged	Moderate	Accessible
Flange gaskets	Miscellaneous	Interior	Yes (spares) Presumed (in place)	375 Ea.	Non-friable	Good	Low	Accessible (spares) Not Accessible (in place)
Silver paint on flashing cement	Miscellaneous	Roof	Yes	10 S.F.	Non-Friable	Damaged	Low	Accessible
Caulking Material, roof flashing	Miscellaneous	Roof	Yes	10 L.F.	Non-Friable	Good	Low	Accessible
Roofing remnants	Miscellaneous	Roof	yes	5 C.F.	Non-Friable	Damaged	Low	Limited Accessibility
Roofing membranes	Miscellaneous	Roof	Presumed	650 S.F.	Non-Friable	Good	Low	Accessible
Brake shoes	Miscellaneous	Exterior	Presumed	12 Ea.	Non-Friable	Good	Low	Limited Accessibility









Appendix A

Analytical Report



May 04, 2017

Timothy A. Jones U.S. ARMY CORPS OF ENGINEERS 200 N. Cobb Pky. Suite 404 CESAS-EN-Gse/Timothy Jones Marietta, GA 30062

Bureau Veritas Work Order A1704259

Reference NEW SAVANNAH BLUFF LOCK & DAM

Dear Timothy A. Jones:

Bureau Veritas North America, Inc. received 42 samples on April 27, 2017 for the analyses presented in the following report.

The results apply only to the samples analyzed in this project. Please note that any unused portion of the samples will be discarded after a sixty-day holding period, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning the report, please contact the analyst whose name appears on the report or myself at (770) 499-7701.

Sincerely,

Jon Perrenoud Senior Microscopist Electronic signature authorized through password protection

Bureau Veritas North America, Inc.

Health, Safety, and Environmental Services 3380 Chastain Meadows Parkway, Suite 300 Kennesaw, GA 30144 Main: (770) 499-7701 Fax: (770) 499-7511 www.us.bureauveritas.com

1 of 15



CASE NARRATIVE

Date: 04-May-17

 CLIENT:
 U.S. ARMY CORPS OF ENGINEERS

 Project:
 NEW SAVANNAH BLUFF LOCK & DAM

 Work Order No
 A1704259

ANALYTICAL METHOD FOR ASBESTOS IN BULK SAMPLES USING POLARIZED LIGHT MICROSCOPY (PLM)

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected unless otherwise noted.

Use of EPA/600/R-93/116 satisfies applicable requirements of the USEPA's "Interim Method for the Determination of Asbestos in Bulk Insulation Sample", EPA-600/M4-82-020, December 1982, published as Appendix E to Subpart E of 40 CFR763. Bulk samples analyzed by New York State methods follow stratified point counting methods (198.1) or Method 198.6 for PLM non-friable organically bound materials (NYSDOH Lab Code -11645). Percentages are visual estimations of asbestos >10:1 aspect ratio. The reliable limit of quantitation of the method is 1%, although asbestos may be qualitatively detected at concentrations less than 1%. Samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed. NESHAP requires point counting of a bulk sample when the result is <10% by a method other than point counting. EPA, however states that if 3 mounts of the sample are analyzed and the asbestos percentage is <10% by visual estimation, the client may elect to assume the amount to be greater than 1% or require verification by point counting. If the result by point counting is different than the result obtained by visual estimation, the point count result will be used. Sample friability or non-friability noted on the report is a requirement for the State of California and refers only to the condition of the sample under macroscopic examination. It does not imply friability or non-friability for the sample as collected or observed in the field as determined by the person collecting the sample. The Kennesaw, Georgia lab is accredited by NVLAP -Lab Code 101125-0.

(a)Polarized- light microscopy is not consistently reliable in detecting asbestos in floor coverings, similar non-friable organically bound materials, soil and verniculite. Quantitative electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing. When analysis of such materials by PLM yields results negative for the presence of asbestos, Bureau Veritas recommends utilizing quantitative transmission electron microscopy (TEM). For more information, contact the laboratory.

References



 CLIENT:
 U.S. ARMY CORPS OF ENGINEERS

 Project:
 NEW SAVANNAH BLUFF LOCK & DAM

 Work Order No
 A1704259

McCrone, Walter C. 1980. The Asbestos Particle Atlas. Ann Arbor, MI: Ann Arbor Science Publishers, Inc.

United States Environmental Protection Agency. Environmental Monitoring Systems Laboratory. 1982. Interim Method for the Determination of Asbestos in Bulk Insulation Samples. EPA-600/M4-82-020. Washington: GPO, December.

United States Environmental Protection Agency. Method for the Determination of Asbestos in Bulk Building Materials. EPA-600/R-93/116, July 1993 (PLM)

Fed. Reg. Vol. 55, No.224, 11/20/90, p.48415 (NESHAP) EPA Memorandum 5/8/1991 –NESHAP Clarifications

NYSDOH Methods 198.1/198.6

QUANTITATIVE ANALYSIS OF NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES FOR ASBESTOS USING TRANSMISSION ELECTRON MICROSCOPY (TEM) (NY ELAP 198.4)

Approximately 100-500 mg of sample is weighed in a tared crucible. The sample is placed in a muffle furnace at a temperature of 480° C for at least 5 hours, or until the weight has stabilized. The sample is allowed to cool to room temperature and immediately weighed to calculate percent of organic loss.

The sample is placed in a tared crucible and ground to disaggregate the residue. Approximately 1 ml of non-dilute HCL acid is slowly added to remove calcite and dolomite from the remaining sample residue. After 15 minutes, the sample is immediately diluted with ultra-pure water. The sample is then dispersed in 50 ml of ultra-pure water and filtered onto a pre-weighed 47 mm, 0.4um pore size polycarbonate filter. The filter is dried on a slide warmer and weighed again. If the residue mass is <1% of the subsample's original mass, the analysis is terminated and the result is reported as non-ACM.

A one cm2 portion of the filter is cut and placed in a clean silica crucible. Approximately 5 ml of ethanol are added and ultra-sonicated for 1 minute. Approximately 3 µl of the suspension is drop-mounted onto a carbon-coated TEM grid and allowed to dry.

Grids are examined at 3000X for suitability of the prep where >50% intact filter coverage and <25% particle loading is determined. Large bundles of asbestos may be noted during this phase of the analysis. At 10,000X to 20,000X, positive confirmation and further visual estimation of asbestos is determined. If there are no other particles on the filter, then the asbestos observed is 100% visual



 CLIENT:
 U.S. ARMY CORPS OF ENGINEERS

 Project:
 NEW SAVANNAH BLUFF LOCK & DAM

 Work Order No
 A1704259

estimation. Otherwise, the estimate includes all sizes relative to other particles or fibers. Morphology, selected area electron diffraction, and energy-dispersive x-ray spectroscopy are used to confirm asbestos fibers. From TEM examination as outlined above, the final visual area estimation is made of asbestos on the TEM grids and the percent asbestos in the residue is then extrapolated using gravimetric records to identify the percent asbestos in the total sample (NYS DOH Lab Code 11645).

SPECIAL NOTES

1)Material types analyzed by 198.1 method: a) Friable materials other than SM-V (Surfacing Material) with <10% vermiculite; b) Surfacing Material (SM) without vermiculite; and c) ceiling tile without cellulose.

2)Material types analyzed by 198.6/198.4 method: NOB material (other than SM-V) with <10% vermiculite; b) any material other than SM-V with >10% vermiculite; and c) Ceiling Tiles with cellulose.

3)Material types analyzed by 198.8 method: Surfacing Material containing vermiculite (SM-V).

REFERENCES

Chatfield Method for Quantitative Analysis of Bulk Samples for Asbestos Using Transmission Electron Microscopy (unpublished).

New York ELAP Method 198.4, May 2016.

NOTE: Some of the samples may have contained inseparable layers which were combined during preparation



IAL	ΥT	ICAL RI	ESULTS				Date:	04-May-17
ENT:		U.S. ARM	Y CORPS OF ENGINE	ERS		Sample	Type:	Bulk
rk Ord	er No	a.: A1704259				Date Rec	eived:	4/27/2017
ent Refe	erenc	e: NEW SAU	ANNAH BLUFF LOCI	K & DAM		Report	Date:	04-May-17
hod Ref	ereno	e: EPA-600/1	M4-82-020/EPA/600/R-	93/116/NYELAP 19	8.1			
ID		Client Sample	ID		Analyst	Date Sampled	1	Date Analyzed
<u>A</u> NSE	8-E-1				KN	04/26/2017		05/04/2017
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	2	Homogeneous		None Detected		Non-Detected		Binder/Filler
(2)	98	Homogeneous Glaze/Caulk	Off-White Window	None Detected		Cellulose fiber	2%	Binder/Filler
<u>a</u> nse	8-E-2	l			KN	04/26/2017		05/04/2017
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	2	Homogeneous	Green Paint	None Detected		Non-Detected		Binder/Filler
(2)	98	Homogeneous Glaze/Caulk	Off-White Window	None Detected		Non-Detected		Binder/Filler
<u>A</u> NSE	8-E-3	l			KN	04/26/2017		05/04/2017
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	2	Homogeneous	Green Paint	None Detected		Non-Detected		Binder/Filler
(2)	98	Homogeneous Glaze/Caulk	Off-White Window	None Detected		Non-Detected		Binder/Filler
<u>A</u> NSE	3-E-4	t			KN	04/26/2017		05/04/2017
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Non-homogene Material	eous Gray Caulking	Chrysotile	3%	Non-Detected		Binder/Filler
				Tot	al 3%			
<u>A</u> NSE	8-E-5	i			KN	04/26/2017		05/04/2017
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Non-homogene Material	eous Gray Caulking	Chrysotile	3%	Non-Detected		Binder/Filler
				Tot	al 3%			

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

_____5/4/2017



NAL I	IIV	CAL RESULTS				Date:	04-May-17
ENT:		U.S. ARMY CORPS OF ENGINEER	RS		Sample	T yp e:	Bulk
rk Order	No.:	A1704259			Date Rec	4/27/2017	
Client Reference: NEW SAVANNAH BLUFF LOCK & DAM					Report	Date:	04-May-17
hod Refere	od Reference: EPA-600/M4-82-020/EPA/600/R-93/116/NYELAP 198.1						
ID	С	lient Sample ID		Analyst	Date Sample	i	Date Analyzed
A NSB-E	E-6			КИ	04/26/2017		05/04/2017
Layer P	OB	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous Gray Caulking	Chrysotile	4%	Non-Detected		Binder/Filler
	IVI 2	iterial	Tot	al 4%			
A NSB-E	-7			KN	04/26/2017		05/04/2017
Layer P	ов	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous White/Brown uulking Material	None Detected		Non-Detected		Binder/Filler
A NSB-E	-8			KN	04/26/2017		05/04/2017
Layer F	OB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous White/Brown uulking Material	None Detected		Non-Detected		Binder/Filler
<u>A</u> NSB-E	-9			KN	04/26/2017		05/04/2017
Layer P	OB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10	0 Hc	mogeneous Brown Expansion Joint	None Detected		Cellulose fiber	2%	Binder/Filler
A NSB-E	-10			KN	04/26/2017		05/04/2017
Layer P	POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10	0 Hc	mogeneous Brown Expansion Joint	None Detected		Cellulose fiber	2%	Binder/Filler
<u>A</u> NSB-E	-11			KN	04/26/2017		05/04/2017
Layer P	OB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10	0 Ho	mogeneous Brown Expansion Joint	None Detected		Cellulose fiber	2%	Binder/Filler
A NSB-1	-12			KN	04/26/2017		05/04/2017
Layer F	ов	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous Off-White/Black ulking Material	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

5/4/2017



	CAL RESULTS				Date:	04-May-17
ENT:	U.S. ARMY CORPS OF ENGINEE	ERS		Sample	Type:	Bulk
rk Order No.:	A1704259			Date Rec	eived:	4/27/2017
ent Reference:	NEW SAVANNAH BLUFF LOCK	& DAM		Report	Date:	04-May-17
thod Reference:	EPA-600/M4-82-020/EPA/600/R-9	3/116/NYELAP 19	98.1			
DID C	lient Sample ID		Analyst	Date Sample	d	Date Analyzed
BA NSB-1-13			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	on-homogeneous Off-White/Black aulking Material	None Detected		Non-Detected		Binder/Filler
IA NSB-1-14			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	omogeneous Off-White Window aze/Caulk	None Detected		Non-Detected		Binder/Filler
5 <u>A</u> NSB-B-15			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	omogeneous Off-White Window aze/Caulk	None Detected		Non-Detected		Binder/Filler
<u>3A</u> NSB-B-16			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	omogeneous Dark Brown Wire sulation	None Detected		Synthetic fiber	50%	Binder/Filler
7 <u>A</u> NSB-1-17			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
W	on-homogeneous Off-White/Brown ire Insulation	None Detected		Synthetic fiber	50%	Binder/Filler
	yer Comment: Paint and insulation inse	sparable.				
A NSB-B-18			KN	04/26/2017		05/04/2017

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

5/4/2017



NAI	ŊΊ	ICA	L RESULTS				Date:	04-May-17
ENT:	2	U.	S. ARMY CORPS OF ENGINEEF	LS .		Sample	Type:	Bulk
rk Or	der N	o.: A	1704259			Date Rec	eived:	4/27/2017
ent Re	feren	ce: NI	EW SAVANNAH BLUFF LOCK &	2 DAM		Report	Date:	04-May-17
hod Re	eferen	ce: EI	PA-600/M4-82-020/EPA/600/R-93	/116/NYELAP 19	8.1	10000 - 1000 Mu		
ID		Client	Sample ID		Analyst	Date Sample	1	Date Analyzed
A NS	SB-1-:	9			KN	04/26/2017		05/04/2017
Lay	er PO	В	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Homog	jeneous Gray Gasket	Chrysotile Tot	45% al 45%	Non-Detected		Binder/Filler
<u>DA</u> NS	SB-1-2	20			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Homog	jeneous Gray Gasket	Chrysotile Tot	45% al 45%	Non-Detected		Binder/Filler
<u>A</u> NS	SB-2-2	21			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)	40 60	Selection of Selection	jeneous Dark Brown Cork Imogeneous Off-White Mastic	None Detected None Detected		Cellulose fiber Cellulose fiber	15% 3%	Binder/Filler Binder/Filler
A NS	SB-2-2	22			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)	80 20	2010/06/06/07	jeneous. Dark Brown Cork Imogeneous. Off-White Mastic	None Detected None Detected		Non-Detected Non-Detected		Binder/Filler Binder/Filler
RA NS	SB-2-2	23			KN	04/26/2017		05/04/2017
Laye	er PO	в	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)	80 20		jeneous Dark Brown Cork imogeneous Off-White Mastic	None Detected None Detected		Non-Detected Non-Detected		Binder/Filler Binder/Filler
IA NS	SB-2-2	24			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Non-ho	mogeneous Multi-colored Debris	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

____5/4/2017



NAI	LY	ΤI	CAL RESULTS				Date:	04-May-17
ENT:	2		U.S. ARMY CORPS OF ENGINEER	۱S		Sample	Type:	Bulk
rk Or	der	No.	: A1704259			Date Rec	eived:	4/27/2017
ent Re	fer	ence	: NEW SAVANNAH BLUFF LOCK &	& DAM		Report	t Date:	04-May-17
hod R	efer	ence	: EPA-600/M4-82-020/EPA/600/R-93	/116/NYELAP 19	98.1			
ID			Client Sample ID		Analyst	Date Sample	d	Date Analyzed
A No	SB-	2-25			KN	04/26/2017		05/04/2017
Lay	er i	ров	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	10	70 N	Ion-homogeneous Multi-colored Debris	None Detected		Non-Detected		Binder/Filler
<u>A</u> Na	SB-	2-26			KN	04/26/2017		05/04/2017
Lay	er :	ров	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	10		Iomogeneous Off-White Caulking 1aterial	None Detected		Non-Detected		Binder/Filler
A NS	SB-	2-27			KN	04/26/2017		05/04/2017
Lay	er i	ров	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	10		Ion-homogeneous Black/Off-White xpansion Joint	None Detected		Non-Detected		Binder/Filler
<u>A</u> N3	SB-	2-28			KN	04/26/2017		05/04/2017
Lay	er i	POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	10		Ion-homogeneous Black/Off-White xpansion Joint	None Detected		Non-Detected		Binder/Filler
<u>A</u> No	SB-	2-29			KN	04/26/2017		05/04/2017
Lay	er .	ров	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	ŧ	5 H	Iomogeneous Light Green Paint	None Detected		Non-Detected		Binder/Filler
(2)	9	5 H	Iomogeneous Brown Fiber Board	None Detected		Wood Fiber	85%	Binder/Filler
<u>A</u> NS	SB-	2-30			KN	04/26/2017		05/04/2017
Lay	er .	ров	Sample Marphology	Ashestos	%	Other Fibers	%	Particulate
(1) (2)	5 9		Iomogeneous Light Green Paint Iomogeneous Brown Fiber Board	None Detected None Detected		Non-Detected Wood Fiber	85%	Binder/Filler Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date: _____5/4/2017



NT:		U.S. ARMY CORPS OF ENGINE	IRS		Sample	Type:	Bulk
Order	No.:	A 1704259			Date Rec	eived:	4/27/2017
t Refere	ence:	NEW SAVANNAH BLUFF LOCK	& DAM		Report	Date:	04-May-17
d Refer	ence:	EPA-600/M4-82-020/EPA/600/R-9	3/116/NYELAP 198	8.1	145555 - 5465445		******
)	ç	Client Sample ID		Analyst	Date Sample	đ	Date Analyzed
NSB-I	R-31			KN	04/26/2017		05/04/2017
Layer I	РОВ	Sample Marphology	Ashestos	%	Other Fibers	%	Particulate
A. (A) (A)		omogeneous Silver Paint	Chrysotile	3%	Non-Detected	10-0-10	Binder/Filler
(2) 60	10 H	omogeneous Black Flashing Cement	None Detected		Cellulose fiber	4%	Binder/Filler
			Tota	ul 1%			
NSB-I	R-32			KN	04/26/2017		05/04/2017
Layer I	РОВ	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 40	л н	omogeneous Silver Paint	Chrysotile	3%	Cellulose fiber	3%	Binder/Filler
· · · ·	· · · ·						
1919 80		omogeneous Black Flashing Cement	None Detected		Cellulose fiber	3%	Binder/Filler
1313 - 30		같은 이 NY 특히의 NAMESONE - 방법은 영양 영양 영양을 가지 않는 것이 있다.		d 1%	Cellulose fiber	3%	Binder/Filler
1313 - 30	10 H	같은 이 NY 특히의 NAMESONE - 방법은 영양 영양 영양을 가지 않는 것이 있다.	None Detected	d 1% KN	Cellulose fiber 04/26/2017	3%	Binder/Filler 05/04/2017
(2) 6(io Hi R-33	같은 이 NY 특히의 NAMESONE - 방법은 영양 영양 영양을 가지 않는 것이 있다.	None Detected			3% %	
(2) 6(<i>NSB-4</i> Layer 1	io Hi R-33 POB	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking	None Detected Tota	KN	04/26/2017		05/04/2017 Particulate
(2) 6(<i>NSB-4</i> Layer 1	io Hi R-33 POB	omogeneous Black Flashing Cement Sample Morphology	None Detected Tota Asbestos	KN % 2%	04/26/2017 Other Fibers	%	05/04/2017 Particulate
(2) 6(<i>NSB-4</i> Layer 1	0 H R-33 POB DO Ni M	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking	None Detected Totz Asbestos Chrysotile	KN % 2%	04/26/2017 Other Fibers	%	05/04/2017 Particulate
(2) 6(NSB-I Layer 1 (1) 10	60 Hi R-33 POB DO Ni M R-34	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking	None Detected Totz Asbestos Chrysotile	KN <u>%</u> 2% d 2%	04/26/2017 Other Fibers Cellulose fiber	%	05/04/2017 Particulate Binder/Filler
(2) 6(NSB-I Layer I (1) 10 NSB-I Layer I	ю н R-33 <u>РОВ</u> 00 N М R-34 <u>РОВ</u>	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking aterial Sample Morphology on-homogeneous Gray Caulking	None Detected Totz <u>Asbestos</u> Chrysotile Totz	KN % 2% II 2% KN	04/26/2017 Other Fibers Cellulose fiber 04/26/2017	<u>%</u> 2%	Particulate Binder/Filler 05/04/2017
(2) 6(NSB-I Layer I (1) 10 NSB-I Layer I	ю н R-33 <u>РОВ</u> 00 N М R-34 <u>РОВ</u>	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking aterial Sample Morphology	None Detected Totz <u>Asbestos</u> Chrysotile Totz <u>Asbestos</u>	KN 2% d 2% KN % 2%	04/26/2017 Other Fibers Cellulose fiber 04/26/2017 Other Fibers	<mark>%</mark> 2% %	05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate
(2) 6(NSB-I Layer I (1) 10 NSB-I Layer I	ю н R-33 <u>Ров</u> 00 М R-34 <u>Ров</u> 00 М М	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking aterial Sample Morphology on-homogeneous Gray Caulking	None Detected Totz Asbestos Chrysotile Totz Asbestos Chrysotile	KN 2% d 2% KN % 2%	04/26/2017 Other Fibers Cellulose fiber 04/26/2017 Other Fibers	<mark>%</mark> 2% %	05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate
(2) 6(NSB-I Layer I (1) 10 NSB-I Layer I (1) 10	0 Hi R-33 POB 00 Ni M R-34 POB 00 Ni M	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking aterial Sample Morphology on-homogeneous Gray Caulking	None Detected Totz Asbestos Chrysotile Totz Asbestos Chrysotile	KN % 2% KN % 2% 2% 1 2%	04/26/2017 Other Fibers Cellulose fiber 04/26/2017 Other Fibers Cellulose fiber	<mark>%</mark> 2% %	05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate Binder/Filler
(2) 6(NSB-4 (1) 10 NSB-4 Layer 1 (1) 10 NSB-4 Layer 1 Layer 1	ю ні R-33 РОВ 00 Ni M R-34 РОВ 00 Ni M R-35 РОВ	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking aterial Sample Morphology on-homogeneous Gray Caulking aterial	None Detected Totz Asbestos Chrysotile Totz Asbestos Chrysotile Totz	KN 9% 2% dl 2% KN 2% dl 2% KN	04/26/2017 Other Fibers Cellulose fiber 04/26/2017 Cellulose fiber 04/26/2017	% 2% % 2%	05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate
(2) 6(NSB-4 (1) 10 NSB-4 Layer 1 (1) 10 NSB-4 Layer 1 Layer 1	0 Hi R-33 POB C POB C POB C POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB POB 	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking aterial Sample Morphology on-homogeneous Gray Caulking aterial	None Detected Totz Asbestos Chrysotile Totz Asbestos Chrysotile Totz Asbestos	KN 9% 2% dl 2% KN 2% dl 2% KN	04/26/2017 Other Fibers O4/26/2017 Other Fibers Cellulose fiber 04/26/2017	% 2% % 2%	05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate
(2) 6(NSB-4 (1) 10 NSB-4 (1) 10 NSB-4 (1) 10 NSB-4 (1) 10	00 Hi R-33 POB 00 Ni M R-34 POB 00 Ni M R-35 POB 00 Hi R-36	omogeneous Black Flashing Cement Sample Morphology on-homogeneous Gray Caulking aterial Sample Morphology on-homogeneous Gray Caulking aterial	None Detected Totz Asbestos Chrysotile Totz Asbestos Chrysotile Totz Asbestos	KN % 2% KN % 2% 1 2% KN %	04/26/2017 Other Fibers Cellulose fiber 04/26/2017 Cellulose fiber 04/26/2017 04/26/2017 Non-Detected	% 2% % 2%	05/04/2017 Particulate Binder/Filler 05/04/2017 Particulate 05/04/2017 Particulate Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

An alyst(s) Name/Date:

____5/4/2017



NAL	YTI	CAL RI	ESULTS				Date:	04-May-17
ENT:		U.S. ARM	Y CORPS OF ENGINEER	S		Sample	Туре:	Bulk
k Ord	er No.	: A1704259				Date Rec	eived:	4/27/2017
nt Refe	erence	: NEW SAU	ANNAH BLUFF LOCK &	2 DAM		Report	Date:	04-May-17
hod Ref	erence	: EPA-600/]	M4-82-020/EPA/600/R-93/	'116/NYELAP 19	8.1	-		
ID		Client Sample	ID		Analyst	Date Sample	d	Date Analyzed
<u>a</u> nse	3-R-37				KN	04/26/2017		05/04/2017
Layer	РОВ	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100 H	lomogeneous	Black Roofing Tar	Chrysotile Tot	5% al 5%	Cellulose fiber	2%	Binder/Filler
<u>a</u> nse	3-R-38	l			KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)		łomogeneous łomogeneous	Black Roofing Tar Brown Paint	None Detected None Detected		Cellulose fiber Non-Detected	2%	Binder/Filler Binder/Filler
<u>a</u> nse	3-R-39				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Ashestos	%	Other Fibers	%	Particulate
(1)		New New York Contraction of the	Light Green Paint	None Detected		Non-Detected		Binder/Filler
(2)		lon-homogene Blaze/Caulk	eous Off-White Window	None Detected		Non-Detected		Binder/Filler
<u>a</u> nse	3-1-40				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)		lomogeneous 31aze/Caulk	Off-White Window	None Detected		Non-Detected		Binder/Filler
(2)	70 H	lomogeneous	Black Insulation Material	None Detected		Non-Detected		Binder/Filler
<u>a</u> nse	3-R-41				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	50 H	lomogeneous	Black Rubbery Material	None Detected		Non-Detected		Binder/Filler
(2)	2 H	lomogeneous	Black Adhesive	None Detected		Non-Detected		Binder/Filler
(3)	48 H	lomogeneous	Rubbery Material	None Detected		Non-Detected		Binder/Filler
<u>a</u> nse	3-R-42				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)			Black Rubbery Material	None Detected		Non-Detected		Binder/Filler
(2)	2 H	lomogeneous	Black Adhesive	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

An alyst(s) Name/Date:

_____5/4/2017



	Labor atory Limits				
Kathleen Nahodyl (KN)					
Range	R Limit	Quartile Limit			
0.1-1	100	+/- 1.482			
10-100	100	+# 26.676			
1-10	100	+/- 5.928			
Trace	100	+/- 1.482			
Laboratory					
Range	R Limit	Quartile Limit			
0.1-1	100	+/- 1.482			
10-100	100	+/- 22.23			
1-10	100	+/- 7.41			
Trace	100	+/- 1.482			

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%", "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

_____5/4/2017



ANALYTICAL RESULTS

Clie	nt: U.S. ARMY	CORPS OF EN	GINEERS					
lient Reference N	O.: NEW SAVA	ANNAH BLUFF	LOCK & DA	м				
Work Order N	lo.: A1704259					Date: 04-1	May-17	
	ical Method: NYI ample Type: Bulk		.98.4 by TEM	E .	Date Ro Repo Grid Box Identif	rt Date: 5/4/	7/2017 2017 3: 01-17H-	14:47 PM
1 0 1	, ,		10 10 0					
Lab Sample No.	Client Sample Identification	Date Sampled	Analysis Date	Analyst	Sample Description (Morphology)	Asbesto Identificatio		Total Asbesto (%)**
1704259-003A	NSB-E-3	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	Blue Paint/Mastic Mixture	None Detecto	ed	< 0.1
1704259-003B	NSB-E-3	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	White Window Glazing Compound	None Detecto	ed	< 0.1
1704259-006A	NSB-E-6	04/26/17 @12:00 an	05/03/17 n @10:24 am	JP	Gray Caulking/ Orange Mastic	Chrysotile	10	0.85
1704259-013A	NSB-1-13	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	White Caulking/Blue	None Detecto	ed	< 0.1
1704259-015A	NSB-B-15	04/26/17 @12:00 an	05/03/17 n @10:24 am	JP	White Window Glazing/Blue Paint	None Detecte	ed	< 0.1
1704259-034A	NSB-R-34	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	Gray Caulking/Orange	Chrysotile	10	0.90
1704259-040A	NSB-1-40	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	Black Mastic	None Detecto	ed	< 0.1
1704259-040B	NSB-1-40	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	White Window Glazing/Green and	None Detecto	ed	< 0.1
			I Microscope	Docume	ntation			
Instru	ument	A Magnification*	A. 1.	Calibratio	on Date			
TEM 1	1/D675	14500x	100 KeV	5/2/20	100 T 10			

<: Result is less than the indicated limit of detection. --: Present but below the detection limit

*: The visual area estimation of asbestos content in the final residue. **: The calculated total percent asbestos in the sample as received.

J Renard Analyst(s) Name/Date:

5/4/2017

Appendix B

Sample Chain of Custody Forms

A1704259

ASBESTOS CHAIN OF CUSTODY US ARMY CORPS of ENGINEERS, ENVIRONMENTAL & MATERIALS UNIT

Project: New Savannah Bluff Lock & Dam	5 day TAT	
Sampler: Tim Jones	Analysis: See below	

DATE	SAMPLE ID	DESCRIPTION	ANALYSIS REQUIRED
4/26/2017	NSB-E-1	Window glazing compound	PLM
4/26/2017	NSB-E-2	Window glazing compound	PLM
4/26/2017	NSB-E-3	Window glazing compound	PLM, TEM
4/26/2017	NSB-E-4	Caulking material	PLM
4/26/2017	NSB-E-5	Caulking material	PLM
4/26/2017	NSB-E-6	Caulking material	PLM, TEM
4/26/2017	NSB-E-7	Caulking material	PLM
4/26/2017	NSB-E-8	Caulking material	PLM
4/26/2017	NSB-E-9	Expansion joint filler	PLM
4/26/2017	NSB-E-10	Expansion joint filler	PLM
4/26/2017	NSB-E-11	Expansion joint filler	PLM
4/26/2017	NSB-1-12	Caulking material	PLM
4/26/2017	NSB-1-13	Caulking material	PLM, TEM
4/26/2017	NSB-1-14	Window glazing compound	PLM
4/26/2017	NSB-B-15	Window glazing compound	PLM, TEM
4/26/2017	NSB-B-16	Wiring insulation	PLM
4/26/2017	NSB-1-17	Wiring insulation	PLM
4/26/2017	NSB-B-18	Wiring insulation	PLM
4/26/2017	NSB-1-19	Flange gasket	PLM
4/26/2017	NSB-1-20	Flange gasket	PLM
4/26/2017	NSB-2-21	Cork duct insulation with mastics	PLM
4/26/2017	NSB-2-22	Cork duct insulation with mastics	PLM
4/26/2017	NSB-2-23	Cork duct insulation with mastics	PLM
4/26/2017	NSB-2-24	Insulation debris	PLM

Relinguished By	Date	Time	Received By	Date	Time
Tim Com	4-27-17	1525	n. Smith	Ybik	1 32
0				77	p

ASBESTOS CHAIN OF CUSTODY						
US ARMY CORPS of ENGINEERS, ENVIRONMENTAL & MATERIALS UNIT						

	Savannah Bluff Lo	on a Dan	Anal size Ore halow
Sampler:	Tim Jones		Analysis: See below
			1
DATE	SAMPLE ID	DESCRIPTION	ANALYSIS REQUIRED
4/26/2017	NSB-2-25	Insulation debris	PLM
4/26/2017	NSB-2-26	Caulking material	PLM
4/26/2017	NSB-2-27	Expansion joint filler	PLM
4/26/2017	NSB-2-28	Expansion joint filler	PLM
4/26/2017	NSB-2-29	Fiberboard	PLM
4/26/2017	NSB-2-30	Fiberboard	PLM
4/26/2017	NSB-R-31	Flashing cement	PLM
4/26/2017	NSB-R-32	Flashing cement	PLM
4/26/2017	NSB-R-33	Caulking material	PLM
4/26/2017	NSB-R-34	Caulking material	PLM, TEM
4/26/2017	NSB-R-35	Silver roof coating	PLM
4/26/2017	NSB-R-36	Silver roof coating	PLM
4/26/2017	NSB-R-37	Roofing tar/flashing cement	PLM
4/26/2017	NSB-R-38	Roofing tar/flashing cement	PLM
4/26/2017	NSB-R-39	Window glazing material	PLM
4/26/2017	NSB-1-40	Window glazing material	PLM, TEM
4/26/2017	NSB-R-41	Rubber tape & adhesive	PLM
4/26/2017	NSB-R-42	Rubber tape & adhesive	PLM

Relinquished By	Date	Time	Received By	Date	Time
True Con	9-27-17	1525	1. Smith	4/21/20	n 3
. 0			Contraction of the second states of the second stat	. 1	

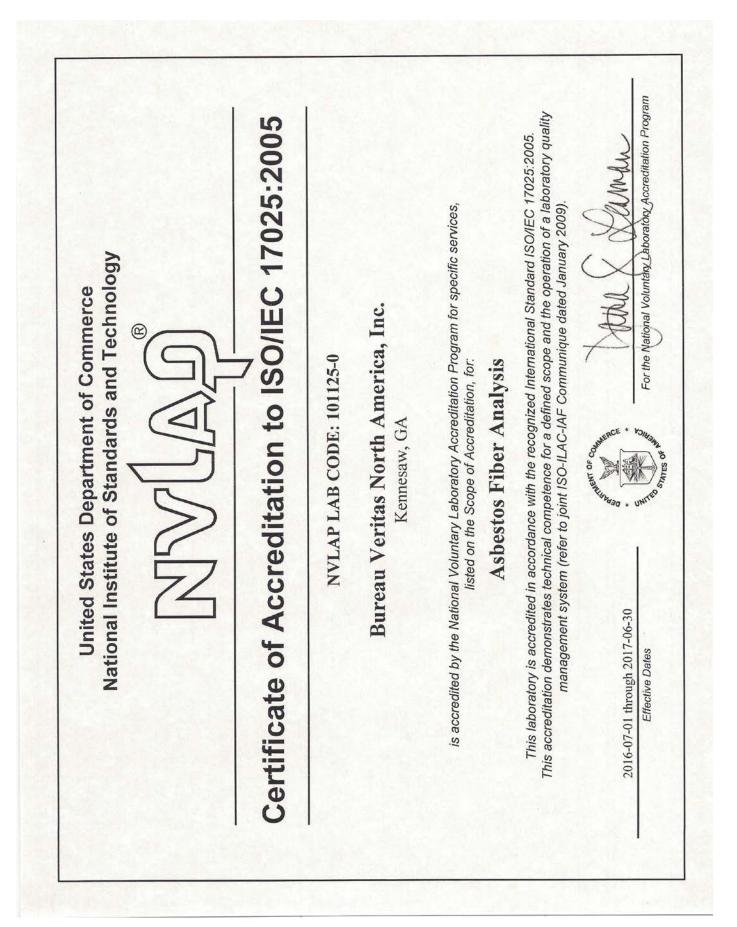
15 of 15

Appendix C

Certifications and Accreditations

	The Environr	mental Institute
	Tim J	Iones
	· · ·	
	Has completed coursewo	ork and satisfactorily passed
		eets all criteria required for
		II) Approved Accreditation
	and NESHAP Re	egulations Training
Asbes	stos in Buildinas: Ins	spection and Assessment
	Ū	•
		2360
Febri	<u>10-12, 1997</u> Course Date	Certificate Number
Fah	ruary 12, 1997	
<u> </u>	Examination Date	(SR)
Feb	ruary 11, 1998	
Int.		
//J	Im H. Spain - Course privector	
	> AN MAR	
Rache	AG. McCain - Exam Administrator	₹.

The Environmental Institute					
Timothy Jones					
Social Security Number - XXX-XX-8826 US Army Corps of Engineers - 200 North Cobb Parkway, Suite 404 - Marietta, Georgia 30062					
Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation					
Asbestos in Buildings: Inspector Refresher					
September 19, 2016 Course Date 15868 Certificate Number					
September 19, 2016 Examination Date					
Thomas G. Laubenthal - Principal Instructor					
Rachel G McCain - Exam Administrator David W. Hogue - Training Manager					
(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577) (Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805) TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com					



NVLAの[®] National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Bureau Veritas North America, Inc. 3380 Chastain Meadows Pkwy., Suite 300 Kennesaw, GA 30144 Mr. Alan M. Segrave Phone: 770-499-7500 Fax: 770-499-7511 Email: alan.segrave@us.bureauveritas.com http://www.us.bureauveritas.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101125-0

Bulk Asbestos Analysis

Code	Description
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials
Airborne As	bestos Analysis
Code	Description
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and

U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

Effective 2016-07-01 through 2017-06-30

Page 1 of 1

APPENDIX B

2017 Hazardous Building Material Survey Report



Hazardous Building Materials Survey

New Savannah Bluff Lock & Dam Augusta, Georgia

Prepared by Timothy A. Jones

Environmental and Materials Unit

Savannah District



The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

April 2017

New Savannah Bluff Lock & Dam Augusta, Georgia

By Timothy A. Jones

Final Report

Prepared for

US Army Corps of Engineers Savannah District

Hazardous Building Materials Survey Report

Introduction

Background

The lock and dam is a concrete structure constructed in the late 1930s timeframe. The structure consists of a dam, a lock and a concrete control/operations building.

Description of study

Investigation

This report documents the Hazardous Building Materials survey of the New Savannah Bluff Lock & Dam at Augusta, Georgia conducted on 26 April 2017 by USACE Savannah District employee Tim Jones. The survey consists of a walk-through of the building and a visual estimation of materials present. This survey does not include asbestos as it is covered by a separate investigation. Quantities listed in this report are rough field estimates only and must be verified by the contractor prior to commencement of any work.

Conclusions

The information gathered during the survey of the structure is listed below:

- *a. Light Count:* The fluorescent and mercury vapor light count results are presented in Table 1.
- *b. Lead Building Materials:* Lead joints are used in some sections of older electrical wiring. Approximately 20 two foot long sections are assumed to exist.
- *c. Compressed Refrigerant Gas:* One window air conditioner was located in the building. This equipment is assumed to contain refrigerant gas that should be recovered prior to disposal.

- *d. Fire Extinguishers:* Two portable fire extinguishers were located in the building.
- *e. Transformers:* One small transformer was located within an electrical cabinet in the building.
- f. Lead-Based Paint: Eight paint chip samples were collected from painted concrete wall and ceiling surfaces and submitted for analysis. Many layers of paint exist in these areas. Most samples contained varying levels of lead, however only one contained lead above the EPA/HUD defined definition for lead-based paint of 0.5% by weight. Since lead was found in the paint samples, OSHA worker protection rules apply to disturbance of the painted materials. Other Federal and/or State regulations may apply and the contractor must determine and adhere to all applicable regulations. These samples do not constitute a full lead-based paint survey and were collected for informational purposes only. Sample information is included in Table 2. Sample locations are indicated on Figures included in this report after Table 2. A scanned copy of the laboratory's analytical report follows as Appendix "A". Approximately 9000 square feet of painted concrete walls and ceilings were located. Metal surfaces quantities were not calculated as they are expected to be recycled.
- *g. Motor Oil:* Approximately three gallons of motor oil is assumed to exist within the emergency generator. One partially filled 55 gallon waste oil drum was located in the facility.
- *h. Hydraulic Oil:* Approximately 500 gallons of hydraulic oil is assumed to exist within the mechanical equipment used to operate gates and in 3 five gallon containers.
- *i. Antifreeze Solution:* Approximately 10 gallons of antifreeze is assumed to exist within the emergency generator.
- *j. Automotive Batteries:* Two automotive style batteries were located adjacent to the emergency generator.
- *k. Above Ground Storage Tank:* One above ground storage tank for diesel fuel of approximately 250 gallons serving the emergency generator was located at the facility.

Tables

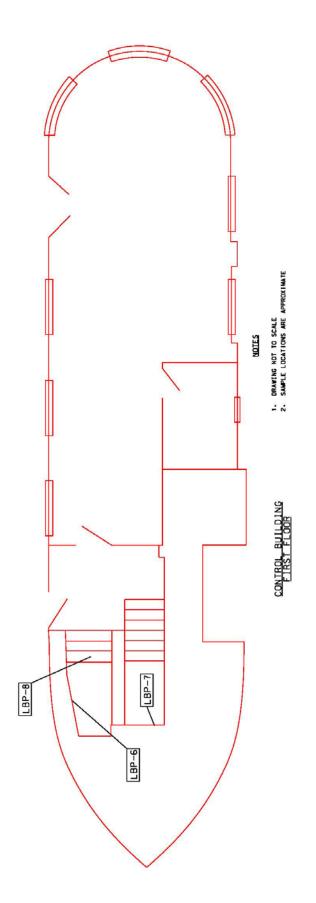
TABLE 1FLORESCENT AND MERCURY LIGHT FIXTURES

AREA IDENTIFICATION	# & TYPE LIGHTS PRESENT	DESCRIPTION OF LIGHTS
Exterior	30	Mercury vapor bulb fixtures

TABLE 2LEAD BASED PAINT SAMPLE INFORMATION

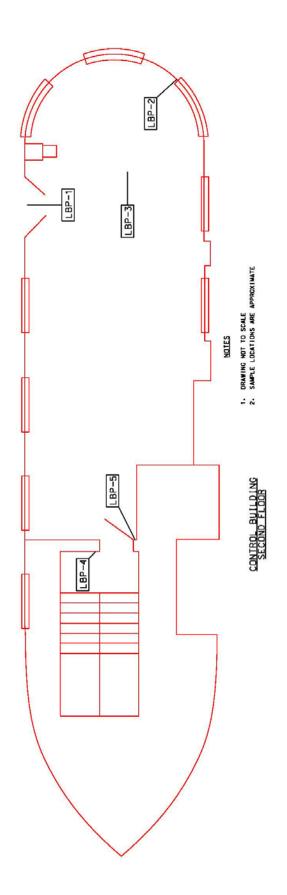
Sample Number	Description	Location	Analytical Result
NSB-LBP-1	Off white on concrete wall, damaged	Second floor, above outside door	0.021%
NSB-LBP-2	Green on concrete, damaged	Second floor, above window	1.0%
NSB-LBP-3	Off white on concrete ceiling deck, damaged	Second floor ceiling	0.12%
NSB-LBP-4	Off white on concrete wall, damaged	Second floor, stairwell	None Detected
NSB-LBP-5	Off white and green on concrete wall, damaged	Second floor, by door to stairwell	0.078%
NSB-LBP-6	Green on concrete wall, damaged	First floor, stairwell	0.013%
NSB-LBP-7	Green on concrete wall, damaged	First floor, stairwell	None Detected
NSB-LBP-8	Gray on concrete stairs, damaged	First floor, stairwell	0.22%

FIGURE 1



4

FIGURE 2



APPENDIX "A"

LABORATORY ANALYTICAL REPORT



May 04, 2017

Tim Jones US ARMY COE 200 North Cobb Parkway Suite 404 Marietta, GA 30062

Bureau Veritas Work Order No. 17041797

Reference: US ARMY COE / NEW SAVANNAH BLUFF LOCK & DAM

Dear Tim Jones:

Bureau Veritas North America, Inc. received 8 samples on April 28, 2017 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely, Sir born

Mike Wantland Client Services Representative Electronic signature authorized through password protection cc: Mike Wantland

Burcau Veritas North America, Inc. (India Sunity, and United Station 22375 Roythel Unive Nove, M1 18575

Marie (248) 248/1770 Fax: (248) 344(2055 www.iiabureauxemas.com

1 of 5



CASE NARRATIVE

Date: 04-May-17

CLIENT:	US ARMY COE
Project:	US ARMY COE / NEW SAVANNAH BLUFF LOCK & DAM
Work Order No	17041797

Bureau Veritas North America is accredited by the AIHA-LAP, LLC ELLAP program as laboratory number 100967. ELLAP meets the requirements of the National Lead Laboratory Accreditation Program (NLLAP), established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis.

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, 1) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, 2) all samples were received in acceptable condition, and 3) results for all solid matrices are reported "as received," not corrected for moisture content.



ANALYTICAL RESULTS

Date: 04-May-17

Client:	US ARMY COE	Work Order: 17041797						
Project:	US ARMY COE / N	EW SAVAI	NAH BLUF	FLOC	K & DA			
Lab ID:	17041797-001	Collection Date: 4/26/2017					5	
Client Sample ID	: NSB-LBP-1	Matrix: PAINT CHIP						
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	C, PAINT CHIPS	0.021	0.0093		wt%	1	5/3/2017 8:22:56 AM	DH
Lab ID:	17041797-002				Colle	tion Date: 4/26/	2017	
Client Sample ID	: NSB-LBP-2	Matrix: PAINT CHIP						
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	, PAINT CHIPS	1.0	0.0085		wt%	1	5/3/2017 8:33:31 AM	DH
Lab ID:	17041797-003	Collection Date: 4/26/2017						
Client Sample ID): NSB-LBP-3					Matrix: PAI	VI CHIP	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	C, PAINT CHIPS	0.12	0.0094		wt%	1	5/3/2017 8:35:15 AM	DH
Lab ID:	17041797-004	Collection Date: 4/26/2017						
Client Sample ID	: NSB-LBP-4		Matrix: PAINT CHIP					
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	C, PAINT CHIPS	ND	0.0079		wt%	1	5/3/2017 8:36:59 AM	DH

Qualifiers: ND - Not D etected at the Reporting Limit (RL).

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

*-Value exceeds Maximum Contaminant Level

 ${\rm S}$ - ${\rm Spike}\,{\rm R}\,{\rm ec}\,{\rm overy}$ outside accepted recovery limits

 ${\rm R}$ - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)



ANALYTICAL RESULTS

ANALYTICAL RESULTS						D	Date: 04-May-17		
					Work Order: 17041797				
Project: I	JS ARMY COE / N	EW SAVAI	NAH BLUF	FLOC	K & DA				
Lab ID:	17041797-005	Collection Date: 4/26/2017							
Client Sample ID:	NSB-LBP-5					Matrix: PAI	VT CHIP		
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analys	
EPA 3050B/6010C, Lead	PAINT CHIPS	0.078	0.010		wt%	1	5/3/2017 8:38:48 AM	DH	
Lab ID:	17041797-006	Collection Date: 4/26/2017							
Client Sample ID: NSB-LBP-6			Matrix: PAINT CHIP						
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst	
EPA 3050B/6010C, Lead	PAINT CHIPS	0.013	0.0090		wt%	1	5/3/2017 8:40:33 AM	DH	
Lab ID:	17041797-007		Collection Date: 4/26/2017						
Client Sample ID:	NSB-LBP-7		Matrix: PAINT CHIP						
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst	
EPA 3050B/6010C, Lead	PAINT CHIPS	ND	0.0097		wt%	1	5/3/2017 8:42:19 AM	DH	
Lab ID:	17041797-008		Collection Date: 4/26/2017						
Client Sample ID:	NSB-LBP-8		Matrix: PAINT CHIP						
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst	
EPA 3050B/6010C,	PAINT CHIPS								
Lead		0.22	0.0096		wt%	1	5/3/2017 8:44:07 AM	DH	

Bureau Veritas is accredited by the AIHA-LAP, LLC ELLAP program as laboratory number 100967. ELLAP meets the requirements of the National Lead Laboratory Accreditation Program (NLLAP), established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil dust wipe analysis.

 ND - $\operatorname{Not} D$ etected at the Reporting Limit (RL). Qualifiers:

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- *- Value exceeds Maximum Contaminant Level

- ${\rm S}$ ${\rm Spike}\,{\rm Recovery}$ outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range
- T Tentatively Identified Compound (TIC)

4 of 5

CHAIN OF CUSTODY - US ARMY CORPS OF ENGINEERS LEAD-BASED PAINT ANALYSIS

Project: New Savannah Bluff Lock & Dam			5 Day TAT				
Sampler: Tim Jones			Analysis: % Lead in Paint				
DATE	FIELD ID		COMPONENTS/NOTES				
4/26/2017	NSB-LBP-1		Paint Chip				
4/26/2017	NSB-LBP-2		Paint Chip				
4/26/2017	NSB-LBP-3		Paint Chip				
4/26/2017	NSB-LBP-4		Paint Chip				
4/26/2017	 NSB-LBP-5 		Paint Chip				
4/26/2017	NSB-LBP-6		Paint Chip				
4/26/2017	NSB-LBP-7		Paint Chip				
4/26/2017	✓ NSB-LBP-8		Paint Chip				
_							

Relinquished By		Date	Time	Received By	Date	Time	
Tim	Gon	4-27-17	1525	Kamith	4/27/17	3:30	
				Dauthang	4/28/207	pn Pn	
				0	(a	11:30	

a 11:30

5 of 5

APPENDIX C

Visual Site Inspection Photographs



Photo 1: AST located outside Lock Control Room

Photo 2: Original Hydraulic Oil Tank located inside the Lock and Dam Control Room





Photo 3: New Hydraulic Oil Tank located inside Lock and Dam Control Room

Photo 4: Terracotta Tile Control Room Floor

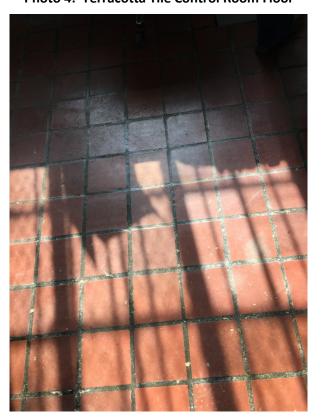




Photo 6: 55 Gallon Drum Reclaimed Oil





Photo 7: Piping of Original Hydraulic System located in Basement Area

Photo 8: Industrial Grade Concrete and Asphalt Cleaner





Photo 11: Emergency Generator located on 2nd Floor of Lock Control Room

Photo 12: Automotive Batteries adjacent to emergency generator



Photo 13: Electrical Control Cabinet located on 2nd Floor of Lock and Dam Control Room



Photo 14: Hydraulic Housing located on top of dam control gates



Photo 15: Hydraulic Oil inside housing units



Photo 16: Flood light along walkway on top of Dam





Photo 17: Case of bulbs labeled High Pressure Sodium

Photo 18: Bulb from case



Photo 19: View of NSBLD Park from top of Dam

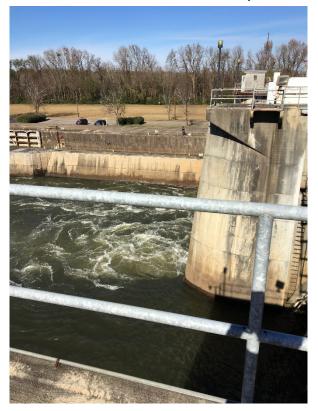


Photo 20: View of NSBLD from lock wall





Photo 21: View property south of the dam, South Carolina

Photo 22: Close up of property to the south

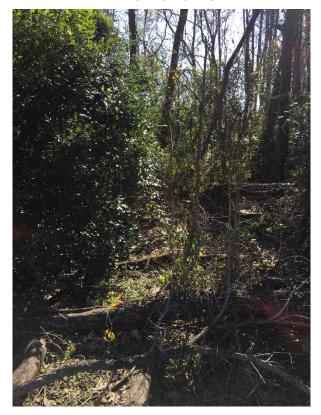


Photo 23: View of property west of Dam

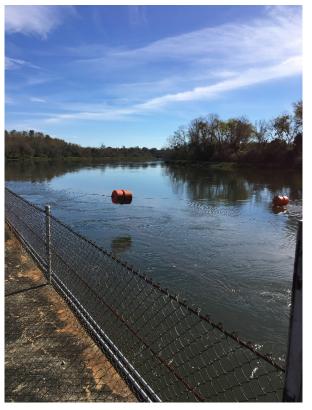


Photo 24: View in the distance is east of the dam



APPENDIX D

EDR Radius Map Report with Geo Check

Savannah Lock and Dam

1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.2s October 10, 2018

The EDR Radius Map[™] Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-LBC-DVV

TABLE OF CONTENTS

SECTION

PAGE

Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	12
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business. Please contact EDR at 1-800-352-0050 with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental St Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1853 LOCK AND DAM ROAD AUGUSTA, GA 30901

COORDINATES

Latitude (North):	33.3729240 - 33° 22' 22.52"
Longitude (West):	81.9403890 - 81° 56' 25.40"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	412520.7
UTM Y (Meters):	3692833.0
Elevation:	114 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6046007 MECHANIC HILL, GA
Version Date:	2014
North Map:	6044439 AUGUSTA EAST, GA
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150914
Source:	USDA

Target Property Address: 1853 LOCK AND DAM ROAD AUGUSTA, GA 30901

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
A1	NEW SAVANNAH BLUFF L	1853 LOCK AND DAM RD	FINDS, ECHO		TP
A2	NEW SAVANNAH BLUFF L	1853 LOCK AND DAM RD	RCRA-CESQG		TP
3	NEW SAVANNAH BLUFF L	2103 LOCK & DAM ROAD	GA TIER 2	Higher	1 ft.

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
NEW SAVANNAH BLUFF L 1853 LOCK AND DAM RD	FINDS Registry ID:: 110024869882	N/A
AUGUSTA, GA 30906	ECHO Registry ID: 110024869882	
NEW SAVANNAH BLUFF L 1853 LOCK AND DAM RD AUGUSTA, GA 30906	RCRA-CESQG EPA ID:: GAR000045997	GAR000045997

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
NPL LIENS	

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY______ Federal Facility Site Information listing SEMS______ Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE...... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG	RCRA - Large C	Quantity Generators
RCRA-SQG	RCRA - Small G	Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS	Land Use Control Information System
US ENG CONTROLS	Engineering Controls Sites List
	Sites with Institutional Controls

Federal ERNS list

ERNS_____ Emergency Response Notification System

State- and tribal - equivalent CERCLIS

GA SHWS	Hazardous Site Inventory
SC SHWS	Site Assessment Section Project List
GA NON-HSI	Non-Hazardous Site Inventory

State and tribal landfill and/or solid waste disposal site lists

GA SWF/LF	Solid Waste Disposal Facilities
SC SWF/LF	Permitted Landfills List

State and tribal leaking storage tank lists

GA LUST	List of Leaking Underground Storage Tanks
SC LUST	Leaking Underground Storage Tank List
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST	Underground Storage Tank Listing
GA UST	Underground Storage Tank Database
SC UST	Comprehensive Underground Storage Tanks
GA AST	Above Ground Storage Tanks
SC AST	Aboveground Storage Tank List
INDIAN UST	. Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

GA AUL	Uniform Environmental Covenants
GA INST CONTROL	Public Record List
SC AUL	Land Use Controls

State and tribal voluntary cleanup sites

GA VCP	Voluntary Cleanup Program site
SC VCP	Voluntary Cleanup Sites
INDIAN VCP	Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

GA BROWNFIELDS..... Brownfields Public Record List

SC BROWNFIELDS..... Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

GA HIST LF	Historical Landfills
GA SWRCY	Recycling Center Listing
SC SWRCY	Solid Waste Recycling Facilities
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9	. Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
IHS OPEN DUMPS	_ Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
GA CDL	Clandestine Drug Labs
SC CDL	Clandestine Drug Lab Sites
GA DEL SHWS	Delisted Hazardous Site Inventory Listing
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2_____ CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
GA SPILLS	_ Spills Information
SC SPILLS	Spills Database List
GA SPILLS 90	SPILLS 90 data from FirstSearch
SC SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA - Non Generators / No Longer Regulated
Formerly Used Defense Sites
Department of Defense Sites
State Coalition for Remediation of Drycleaners Listing
Financial Assurance Information
. EPA WATCH LIST
2020 Corrective Action Program List
Toxic Substances Control Act
Toxic Chemical Release Inventory System
Section 7 Tracking Systems
Records Of Decision
Risk Management Plans
RCRA Administrative Action Tracking System
Potentially Responsible Parties

	PCB Activity Database System
	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
	Act)/TSCA (Toxic Substances Control Act) Material Licensing Tracking System
MLTS	_ Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
	. Coal Combustion Residues Surface Impoundments List
	PCB Transformer Registration Database
	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	_ Superfund (CERCLA) Consent Decrees
INDIAN RESERV	
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	_ Uranium Mill Tailings Sites
LEAD SMELTERS	
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	_ Mines Master Index File
ABANDONED MINES	
DOCKET HWC	- Hazardous Waste Compliance Docket Listing
UXO	. Unexploded Ordnance Sites
	_ EPA Fuels Program Registered Listing
GA AIRS	Permitted Facility and Emissions Listing
	Permitted Airs Facility Listing
	Coal Ash Disposal Site Listing
SC COAL ASH	Coal Ash Disposal Sites
GA DRYCLEANERS	Drycleaner Database
SC DRYCLEANERS	Drycleaner Database
GA Financial Assurance	- Financial Assurance Information Listing
SC Financial Assurance	Financial Assurance Information Listing
	NPDES Wastewater Permit List
SC NPDES	. Waste Water Treatment Facilities Listing
	-

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

GA RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
SC RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
GA RGA LF	Recovered Government Archive Solid Waste Facilities List
SC RGA LF	Recovered Government Archive Solid Waste Facilities List
GA RGA LUST	Recovered Government Archive Leaking Underground Storage Tank
SC RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in *bold italics* are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

GA TIER 2: A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

A review of the GA TIER 2 list, as provided by EDR, and dated 12/31/2016 has revealed that there is 1 GA TIER 2 site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NEW SAVANNAH BLUFF L Facility Id: 4512817	2103 LOCK & DAM ROAD	0 - 1/8 (0.000 mi.)	3	10

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

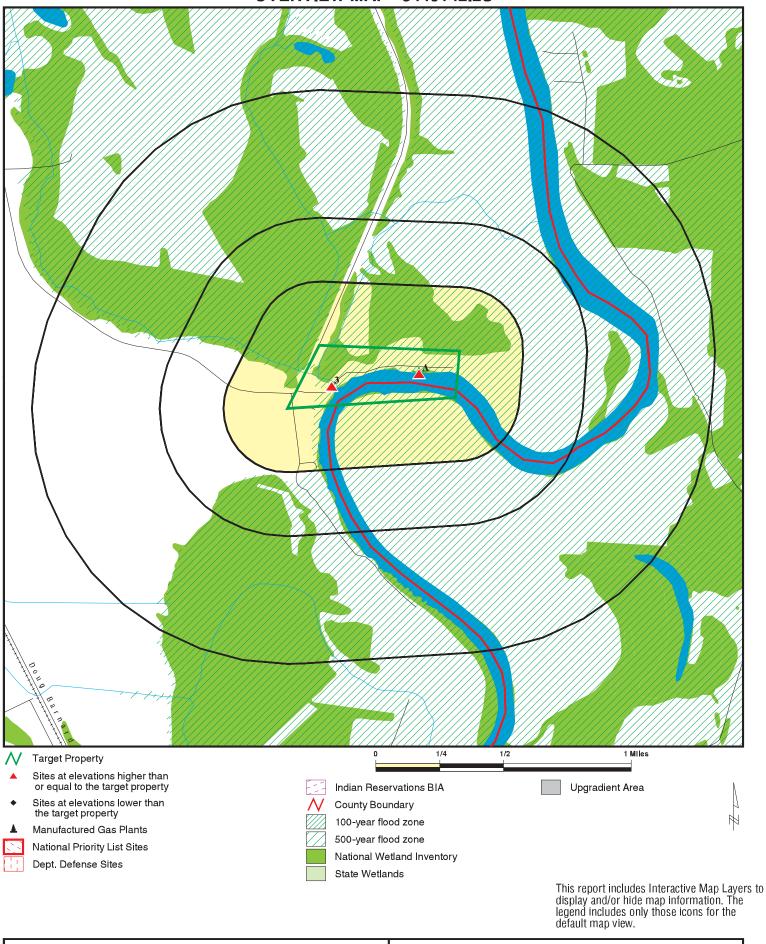
Site Name

UNKNOWN/LOCK DAM BRIDGE FIRE

Database(s)

GA SPILLS

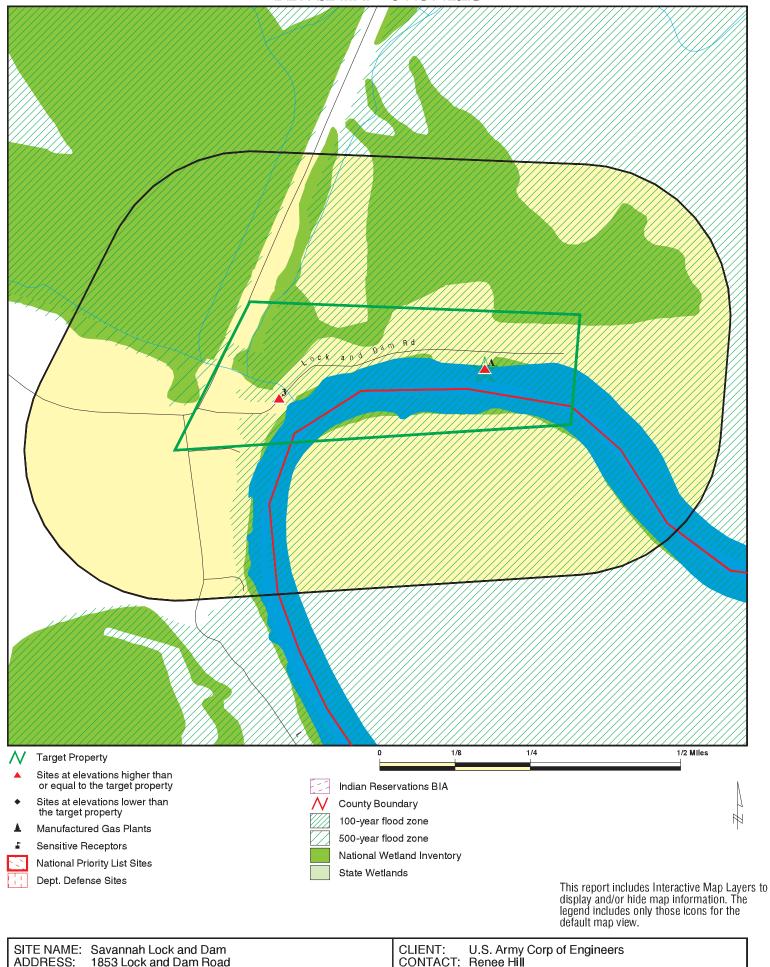
OVERVIEW MAP - 5449142.2S



SITE NAME:Savannah Lock and DamCLIENT:U.S. Army Corp of EngineersADDRESS:1853 Lock and Dam Road
Augusta GA 30901INQUIRY #:5449142.2sLAT/LONG:33.372924 / 81.940389DATE:October 10, 2018 9:29 am

Copyright © 2018 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 5449142.2S



DATE: October 10, 2018 9:30 am Copyright © 2018 EDR, Inc. © 2015 TomTom Rel. 2015.

INQUIRY #: 5449142.2s

Augusta GA 30901

33.372924 / 81.940389

LAT/LONG:

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 0.001		0 0 0	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL si	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	Federal RCRA CORRACTS facilities list							
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD f	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250	1	0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 1
Federal institutional con engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
GA SHWS SC SHWS GA NON-HSI	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
State and tribal landfill a solid waste disposal sit								
GA SWF/LF SC SWF/LF	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal leaking	storage tank l	lists						
GA LUST	0.500		0	0	0	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SC LUST INDIAN LUST	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal register	ed storage ta	nk lists						
FEMA UST GA UST SC UST GA AST SC AST INDIAN UST	0.250 0.250 0.250 0.250 0.250 0.250		0 0 0 0 0	0 0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0
State and tribal institution control / engineering co		es						
GA AUL GA INST CONTROL SC AUL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal voluntar	ry cleanup sit	es						
GA VCP SC VCP INDIAN VCP	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal Brownfi	elds sites							
GA BROWNFIELDS SC BROWNFIELDS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
ADDITIONAL ENVIRONME	NTAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Waste Disposal Sites	Solid							
GA HIST LF GA SWRCY SC SWRCY INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500 0.500 0.500		0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	NR NR NR NR NR NR	NR NR NR NR NR NR	0 0 0 0 0 0 0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL GA CDL SC CDL GA DEL SHWS US CDL	0.001 0.001 0.001 1.000 0.001		0 0 0 0	NR NR NR 0 NR	NR NR NR 0 NR	NR NR NR 0 NR	NR NR NR NR	0 0 0 0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Records of Emergency F	Release Repo	orts						
HMIRS GA SPILLS SC SPILLS GA SPILLS 90 SC SPILLS 90	0.001 0.001 0.001 0.001 0.001		0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS FTTS MLTS COAL ASH DOE COAL ASH DOE COAL ASH EPA PCB TRANSFORMER RADINFO HIST FTTS DOT OPS CONSENT INDIAN RESERV FUSRAP UMTRA LEAD SMELTERS US AIRS US MINES ABANDONED MINES FINDS ECHO DOCKET HWC UXO FUELS PROGRAM GA AIRS SC AIRS	0.250 1.000 1.000 0.500 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 1.000 0.001 1.000 0.001 0.	1	$\begin{smallmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $	0 0 0 0 RR 0 RR R 0 R RR RR RR R R 0 R R 0 R 0 0 RR 0 R R RR R	NR O O O RRRR RR O R RRR RRR RR O R O NR O O RRR RR RR O R RRR RR	NR 0 0 RR R R R R R R R R R R R R R R R	NR R R R R R R R R R R R R R R R R R R	
GA COAL ASH SC COAL ASH GA DRYCLEANERS	0.500 0.500 0.250		0 0 0	0 0 0	0 0 NR	NR NR NR	NR NR NR	0 0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SC DRYCLEANERS	0.250		0	0	NR	NR	NR	0
GA Financial Assurance	0.001		0	NR	NR	NR	NR	0
SC Financial Assurance	0.001		0	NR	NR	NR	NR	0
GA NPDES	0.001		0	NR	NR	NR	NR	0
SC NPDES	0.001		0	NR	NR	NR	NR	0
GA TIER 2	0.001		1	NR	NR	NR	NR	1
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Go	vt. Archives							
GA RGA HWS	0.001		0	NR	NR	NR	NR	0
SC RGA HWS	0.001		0	NR	NR	NR	NR	0
GA RGA LF	0.001		0	NR	NR	NR	NR	0
SC RGA LF	0.001		0	NR	NR	NR	NR	0
GA RGA LUST	0.001		0	NR	NR	NR	NR	0
SC RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals		3	1	0	0	0	0	4

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID		MAP FINDINGS				
Direction Distance Elevation	Site		Database(s)	EDR ID Number EPA ID Number		
A1 Target Property	NEW SAVANNAH BLUFF 1853 LOCK AND DAM RD AUGUSTA, GA 30906	LOCK AND DAM	FINDS ECHO	1009402562 N/A		
	Site 1 of 2 in cluster A					
Actual: 114 ft.	FINDS:					
	Registry ID:	110024869882				
	Environmental Interest/Information System RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.					
	<u>Click this hyperlink</u> while viewing on your computer to access additional FINDS: detail in the EDR Site Report.					
	ECHO: Envid: Registry ID: DFR URL:	1009402562 110024869882 http://echo.epa.gov/detailed-facility-report?fid=	=110024869882			
A2 Target Property	NEW SAVANNAH BLUFF 1853 LOCK AND DAM RD AUGUSTA, GA 30906	LOCK AND DAM	RCRA-CESQG	1009398525 GAR000045997		
	Site 2 of 2 in cluster A					
Actual: 114 ft.	RCRA-CESQG: Date form received by Facility name: Facility address: EPA ID: Mailing address: Contact: Contact address: Contact country: Contact telephone: Telephone ext.: Contact email: EPA Region: Classification: Description:	agency: 05/14/2012 NEW SAVANNAH BLUFF LOCK AND DAM 1853 LOCK AND DAM RD AUGUSTA, GA 30906 GAR000045997 POWER PLANT RD THURMOND POWER PLANT CLARKS HILL, SC 29821 ERIC C HASKELL POWER PLANT RD THURMOND POWER PLANT CLARKS HILL, SC 29821 US 864-333-1171 1177 ERIC.C.HASKELL@USACE.ARMY.MIL 04 Conditionally Exempt Small Quantity Generator Handler: generates 100 kg or less of hazardous waste p month, and accumulates 1000 kg or less of hazardous waste p month, and accumulates at any time: 1 kg or less of act waste; or 100 kg or less of any residue or contaminated other debris resulting from the cleanup of a spill, into or land or water, of acutely hazardous waste; or generates of any residue or contaminated soil, waste or other debris	waste at any time; er calendar utely hazardous I soil, waste or on any s 100 kg or less			

MAP FINDINGS

EDR ID Number Database(s) EPA ID Number

1009398525

NEW SAVANNAH BLUFF LOCK AND DAM (Continued) from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste **Owner/Operator Summary:** Owner/operator name: US ARMY CORPS OF ENGINEERS SAV DISTRICT Owner/operator address: Not reported Not reported Owner/operator country: US Owner/operator telephone: Not reported Owner/operator email: Not reported Owner/operator fax: Not reported Not reported Owner/operator extension: Legal status: Federal Owner/Operator Type: Operator Owner/Op start date: 01/01/1937 Owner/Op end date: Not reported Owner/operator name: US ARMY CORPS OF ENGINEERS SAV DISTRICT Owner/operator address: P O BOX 889 SAVANNAH, GA 31402 Owner/operator country: US Owner/operator telephone: Not reported Owner/operator email: Not reported Owner/operator fax: Not reported Owner/operator extension: Not reported Legal status: Federal Owner/Operator Type: Owner Owner/Op start date: 01/01/1937 Owner/Op end date: Not reported Handler Activities Summary: U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No No

Underground injection activity: On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No D008 Waste code:

Historical Generators:

Waste name:

Date form received by agency: 05/22/2006

LEAD

		1		
Map ID		MAP FINDINGS		
Direction	Ч			
Distance	Cita		Detekees(a)	EDR ID Number
Elevation	Site		Database(s)	EPA ID Number
	NEW SAVANNAH BLUFF LOCK A	ND DAM (Continued)		1009398525
	Site name:	NEW SAVANNAH BLUFF LOCK AND DAM		
	Classification:	Conditionally Exempt Small Quantity Generator		
	. Waste code:	D008		
	. Waste name:	LEAD		
	Violation Status:	No violations found		
3	NEW SAVANNAH BLUFF LOCK &	A DAM	GA TIER 2	S117050811
4.10	2103 LOCK & DAM ROAD			N/A
< 1/8 1 ft.	AUGUSTA, GA 30906			
1 10.				
Relative:	GA TIER 2:	2013		
Higher	Reporting Year: Facility ID:	4512817		
Actual:	Facility Country:	Not reported		
116 ft.	Company Name:	US Army Corps of Engineers		
	Date Submitted:	Not reported		
	Filing Type:	Not reported		
	SIC Code:	Not reported		
	NAICS Code: Dun&Bradstreet Code:	Not reported		
	Chemicals Same as Last Yea	Not reported r: Not reported		
	Data Tier 2 Signed:	Not reported		
	Dikes/Saveguard Measures:	Not reported		
	Facility Department:	Not reported		
	Facility Date Modified:	02/25/2014		
	State Fees Total:	Not reported		
	Mailing Address: Mailing City,St,Zip:	Not reported Not reported		
	Mailing Country:	Not reported		
	Latitude:	33.3722076		
	Longitude:	-81.946297		
	Lat/Long Location Desc:	Not reported		
	Lat/Long Method:	Not reported		
	Number Employees on Site: Site Coordinate Abbrvtns Sbn	Not reported httd: Not reported		
	Fire District:	Not reported		
	Notes:	Not reported		
	Validity:	Not reported		
	Contact 1:	Eric Haskell		
	Contact Type 1:	Emergency Contact		
	Contact Email 1: Contact 1 Telephone1:	eric.c.haskell@usace.army.mil 864-333-1171		
	Contact 1 Telephone2:	864-333-1165		
	Contact 1 Phone3:	Not reported		
	Contact Name 2:	Matt Rorick		
	Contact Type 2:	Emergency Contact		
	Contact Email 2:	matthew.m.rorick@usace.army.mil		
	Contact 2 Telephone1:	864-333-1171		
	Contact 2 Telephone2: Contact Name 3:	864-333-1165 Scott Hyatt		
	Contact Type 3:	Owner / Operator		
	Contact Email 3:	Scott.M.Hyatt2@usace.army.mil		
	Contact 3 Telephone1:	800-533-3478		
	Contact 3 Telephone2:	Not reported		
	Contact 3 Telephone3:	Not reported		
	Contact Name 4:	Eric US Army Corps of Engineers		

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

NEW SAVANNAH BLUFF LOCK & DAM (Continued)

Contact Type 4: **Tier II Information Contact** eric.c.haskell@usace.army.mil Contact Email 4: Contact 4 Telephone1: 864-333-1165 Contact 4 Telephone2: Not reported Contact Name 5: Not reported Not reported Contact Type 5: Contact Email 5: Not reported Contact 5 Telephone1: Not reported Contact 5 Telephone2: Not reported Contact 5 Telephone3: Not reported Inventory: Facility Id: 4512817 2013 Year: Chemical Inventory ID: Not reported Acute Health Risks: False Average Daily Amount: 18326.0 Average Daily Amount Code: Not reported CB Record ID: Not reported Chemical Same as Last Year: Not reported Chronic Health Risk: True CAS Number: 0000 EHS Substance: Not reported Last Modified: Not reported Days on Site: Not reported Chemical Name: Quintolubirc 822-300 Hydraulic Fluid Fire Hazard: False Gas: False Liquid: True Max Daily Amount: 18326.0 Max Daily Amount Code: Not reported Max Amount in Largest Container: Not reported Mixture Form: True Sudden Release of Pressure Hazard: True Pure Form: False Reactive Hazard: False Solid: False Facility Name: New Savannah Bluff Lock & Dam Contact Info: Matt Rorick Contact Type: **Emergency Contact** Email: matthew.m.rorick@usace.army.mil 864-333-1171 Phone1: Phone2: 864-333-1165 Phone3: Not reported Phone4: Not reported Phone5: Not reported Hazardous 1 least hazardous/4 most hazardous: 0 Flammable 1 least flammable/4 most flammable: 0 0 Reactive 1 least reactive/4 very reactive: Any characteristic over/above H F and R category: _

S117050811

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AUGUSTA	S102601645	UNKNOWN/LOCK DAM BRIDGE FIRE	OLD LOCK DAM ROAD JUST PRIOR T		GA SPILLS

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/17/2018 Date Data Arrived at EDR: 08/09/2018 Date Made Active in Reports: 09/07/2018 Number of Days to Update: 29 Source: EPA Telephone: N/A Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 01/14/2019 Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC) Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143

EPA Region 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 EPA Region 6 Telephone: 214-655-6659

EPA Region 7 Telephone: 913-551-7247

EPA Region 8 Telephone: 303-312-6774

EPA Region 9 Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/17/2018 Date Data Arrived at EDR: 08/09/2018 Date Made Active in Reports: 09/07/2018 Number of Days to Update: 29 Source: EPA Telephone: N/A Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 01/14/2019 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994 Number of Days to Update: 56 Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011 Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/17/2018 Date Data Arrived at EDR: 08/09/2018 Date Made Active in Reports: 09/07/2018 Number of Days to Update: 29 Source: EPA Telephone: N/A Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 01/14/2019 Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016 Date Data Arrived at EDR: 01/05/2017 Date Made Active in Reports: 04/07/2017 Number of Days to Update: 92 Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 07/06/2018 Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/17/2018 Date Data Arrived at EDR: 08/09/2018 Date Made Active in Reports: 09/07/2018 Number of Days to Update: 29 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/17/2018 Date Data Arrived at EDR: 08/09/2018 Date Made Active in Reports: 09/07/2018 Number of Days to Update: 29 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 01/14/2019 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 09/19/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 01/07/2019
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018Source: Environmental Protection AgencyDate Data Arrived at EDR: 03/28/2018Telephone: (404) 562-8651Date Made Active in Reports: 06/22/2018Last EDR Contact: 09/19/2018Number of Days to Update: 86Next Scheduled EDR Contact: 01/07/2019Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/14/2018	Source: Department of the Navy
Date Data Arrived at EDR: 05/18/2018	Telephone: 843-820-7326
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/16/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/26/2018
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/28/2018	Telephone: 703-603-0695
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 08/28/2018
Number of Days to Update: 17	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/31/2018 Date Data Arrived at EDR: 08/28/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 17 Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 08/28/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/18/2018 Date Data Arrived at EDR: 06/27/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 79 Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 09/25/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

GA SHWS: Hazardous Site Inventory

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 07/01/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/06/2018	Telephone: 404-657-8600
Date Made Active in Reports: 08/13/2018	Last EDR Contact: 09/24/2018
Number of Days to Update: 38	Next Scheduled EDR Contact: 01/07/2019
	Data Release Frequency: Annually

SC SHWS: Site Assessment Section Project List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/15/2018	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 06/22/2018	Telephone: 803-898-0835
Date Made Active in Reports: 08/10/2018	Last EDR Contact: 09/06/2018
Number of Days to Update: 49	Next Scheduled EDR Contact: 12/24/2018
	Data Release Frequency: Semi-Annually

GA NON HSI: Non-Hazardous Site Inventory

This list was obtained by EDR in 1998 and contains property listings that have reported contamination of soil or groundwater under the Georgia Hazardous Site Response Act (HSRA). These sites were not placed on the Georgia Priority list (Hazardous Site Inventory or HSI) because their hazard evaluation scores did not exceed the threshold levels established for sites posing an imminent threat to health or the environment. Disclaimer provided by Rindt-McDuff Associates - the database information has been obtained from publicly available sources produced by other entities. While reasonable steps have been taken to insure the accuracy of the data, RMA does not guarantee the accuracy of the data. No claim is made for the actual existence of pollution at any site. This data does not constitute a legal opinion.

Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/24/2018 Date Made Active in Reports: 08/13/2018 Number of Days to Update: 20 Source: Rindt-McDuff Associates, Inc. Telephone: N/A Last EDR Contact: 10/05/2018 Next Scheduled EDR Contact: 01/21/2019 Data Release Frequency: Annually

State and tribal landfill and/or solid waste disposal site lists

GA SWF/LF: Solid Waste Disposal Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/11/2017 Date Data Arrived at EDR: 11/01/2017 Date Made Active in Reports: 12/20/2017 Number of Days to Update: 49 Source: Department of Natural Resources Telephone: 404-362-2696 Source: Center for GIS, Georgia Institute of Technology Telephone: 404-385-0900 Last EDR Contact: 08/02/2018 Next Scheduled EDR Contact: 11/12/2018 Data Release Frequency: Semi-Annually

SC SWF/LF: Permitted Landfills List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/11/2018	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 06/12/2018	Telephone: 803-734-5165
Date Made Active in Reports: 07/05/2018	Source: Department of Health and Environmental Control, GIS Section
Number of Days to Update: 23	Telephone: 803-896-4084
	Last EDR Contact: 09/06/2018
	Next Scheduled EDR Contact: 12/24/2018
	Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

GA LUST: List of Leaking Underground Storage Tanks Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/30/2018 Date Data Arrived at EDR: 06/13/2018 Date Made Active in Reports: 06/21/2018 Number of Days to Update: 8 Source: Environmental Protection Division Telephone: 404-362-2687 Last EDR Contact: 09/14/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Quarterly

SC LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Source: Department of Health and Environmental Control
Telephone: 803-898-4350
Last EDR Contact: 07/23/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3372
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018	Source: EPA Region 10 Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Ta A listing of leaking underground storage tank lo		
Date of Government Version: 04/13/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies	
INDIAN LUST R8: Leaking Underground Storage Ta LUSTs on Indian land in Colorado, Montana, N	anks on Indian Land lorth Dakota, South Dakota, Utah and Wyoming.	
Date of Government Version: 04/25/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies	
INDIAN LUST R4: Leaking Underground Storage Ta LUSTs on Indian land in Florida, Mississippi an		
Date of Government Version: 05/08/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies	
INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.		
Date of Government Version: 04/01/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies	
INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska		
Date of Government Version: 04/24/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies	
INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.		
Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies	
State and tribal registered storage tank lists		
FEMA UST: Underground Storage Tank Listing A listing of all FEMA owned underground stora	ge tanks.	
Date of Government Version: 05/15/2017 Date Data Arrived at EDR: 05/30/2017 Date Made Active in Reports: 10/13/2017 Number of Days to Update: 136	Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 07/11/2018 Next Scheduled EDR Contact: 10/22/2018 Data Release Erequency: Varies	

Data Release Frequency: Varies

GA UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 06/14/2018	Source: Environmental Protection Division
Date Data Arrived at EDR: 09/12/2018	Telephone: 404-362-2687
Date Made Active in Reports: 09/21/2018	Last EDR Contact: 09/12/2018
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/24/2018
	Data Release Frequency: Annually

SC UST: Comprehensive Underground Storage Tanks

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Telephone: 404-656-5875

Last EDR Contact: 08/17/2018

Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Varies

Date of Government Version: 03/26/2018 Date Data Arrived at EDR: 03/29/2018 Date Made Active in Reports: 04/25/2018 Number of Days to Update: 27	Source: Department of Health and Environmental Control Telephone: 803-896-7957 Last EDR Contact: 09/17/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Quarterly
GA AST: Above Ground Storage Tanks A listing of LP gas tank site locations.	
Date of Government Version: 06/04/2012	Source: Office of Insurance & Safety Fire Commissioner

Date of Government Version: 06/04/2012 Date Data Arrived at EDR: 06/05/2012 Date Made Active in Reports: 06/14/2012 Number of Days to Update: 9

SC AST: Aboveground Storage Tank List Registered Aboveground Storage Tanks.

> Date of Government Version: 03/25/2004 Date Data Arrived at EDR: 08/04/2004 Date Made Active in Reports: 09/23/2004 Number of Days to Update: 50

Source: Department of Health and Environmental Control Telephone: 803-898-4350 Last EDR Contact: 08/27/2018 Next Scheduled EDR Contact: 12/10/2018

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Data Release Frequency: Varies

Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018	Source: EPA Region 10 Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3368
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land	
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indiar	۱
land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).	

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-7591
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 63

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

Contact: 11/05/2018

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-6136
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

GA INST CONTROL: Public Record List

Sites on the Public Record Listing that have institutional controls or limitations on use are sites with Risk Reduction Standards of 3, 4, and 5.

Date of Government Version: 06/06/2018 Date Data Arrived at EDR: 08/06/2018 Date Made Active in Reports: 08/13/2018 Number of Days to Update: 7	Source: Department of Natural Resources Telephone: 404-657-8600 Last EDR Contact: 08/06/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Varies
GA AUL: Uniform Environmental Covenants A list of environmental covenants	
Date of Government Version: 03/19/2018 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 06/21/2018 Number of Days to Update: 44	Source: Department of Natural Resources Telephone: 404-657-8600 Last EDR Contact: 08/10/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Varies

SC AUL: Land Use Controls

The term Land Use Controls or "LUCs" encompass institutional controls, such as those involved in real estate interests, governmental permitting, zoning, public advisories, deed notices, and other legal restrictions. The term also includes restrictions on access, whether achieved by means of engineered barriers (e.g., fence or concrete pad) or by human means (e.g., the presence of security guards). Additionally, the term includes both affirmative measures to achieve the desired restrictions (e.g., night lighting of an area) and prohibitive directives (e.g., restrictions on certain types of wells for the duration of the corrective action). Considered altogether, the LUCs for a facility will provide a tool for how the property should be used in order to maintain the level of protectiveness that one or more corrective actions were designed to achieve.

Date of Government Version: 06/12/2018 Date Data Arrived at EDR: 06/14/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 36 Source: Department of Health & Environmental Control Telephone: 803-896-4049 Last EDR Contact: 09/13/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Varies

State and tribal voluntary cleanup sites

GA VCP: Voluntary Cleanup Program site

Georgia's Voluntary Remediation Program Act was created to encourage voluntary investigation and remediation of contaminated properties.

Date of Government Version: 03/19/2018	Source: DNR
Date Data Arrived at EDR: 05/29/2018	Telephone: 404-657-8600
Date Made Active in Reports: 06/21/2018	Last EDR Contact: 08/31/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Reg
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-91
Date Made Active in Reports: 02/18/2016	Last EDR Contact:
Number of Days to Update: 142	Next Scheduled ED
	Data Dalagaa Erag

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 09/24/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008 Number of Days to Update: 27 Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009 Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

SC VCP: Voluntary Cleanup Sites

Sites participating in the Voluntary Cleanup Program. Once staff and a non-responsible party have agreed upon an approved scope of work for a site investigation and/or remediation, the party enters into a voluntary cleanup contract. Staff oversees the cleanup efforts to ensure that activities are performed to our satisfaction. Upon completion of the negotiated work in the voluntary cleanup contract, the non-responsible party receives State Superfund liability protection.

Date of Government Version: 07/12/2018 Date Data Arrived at EDR: 07/17/2018 Date Made Active in Reports: 08/10/2018 Number of Days to Update: 24 Source: Department of Health and Environmental Control Telephone: 803-896-4049 Last EDR Contact: 07/12/2018 Next Scheduled EDR Contact: 10/12/2019 Data Release Frequency: Varies

State and tribal Brownfields sites

GA BROWNFIELDS: Brownfields Public Record List

The Brownfields Public Record lists properties where response actions under the Georgia Hazardous Site Reuse and Redevelopment Act are planned, ongoing or completed.

Date of Government Version: 06/06/2018	Source: Department of Natural Resources
Date Data Arrived at EDR: 08/06/2018	Telephone: 404-657-8600
Date Made Active in Reports: 08/13/2018	Last EDR Contact: 08/06/2018
Number of Days to Update: 7	Next Scheduled EDR Contact: 11/19/2018
	Data Release Frequency: Varies

SC BROWNFIELDS: Brownfields Sites Listing

The Brownfields component of the Voluntary Cleanup Program allows a non-responsible party to acquire a contaminated property with State Superfund liability protection for existing contamination by agreeing to perform an environmental assessment and/or remediation.

Date of Government Version: 07/12/2018 Date Data Arrived at EDR: 07/17/2018 Date Made Active in Reports: 08/10/2018 Number of Days to Update: 24 Source: Department of Health & Environmental Control Telephone: 803-896-4069 Last EDR Contact: 07/12/2018 Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/18/2018 Date Data Arrived at EDR: 06/20/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 09/18/2018 Next Scheduled EDR Contact: 12/31/2018 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

	GA HIST LF: Historical Landfills Landfills that were closed many years ago.	
	Date of Government Version: 01/15/2003 Date Data Arrived at EDR: 01/20/2004 Date Made Active in Reports: 02/06/2004 Number of Days to Update: 17	Source: Department of Natural Resources Telephone: 404-362-2696 Last EDR Contact: 01/20/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies
	GA SWRCY: Recycling Center Listing A listing of recycling facility locations.	
	Date of Government Version: 07/06/2018 Date Data Arrived at EDR: 07/10/2018 Date Made Active in Reports: 08/15/2018 Number of Days to Update: 36	Source: Department of Community Affairs Telephone: 404-679-1598 Last EDR Contact: 09/24/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Varies
	SC SWRCY: Solid Waste Recycling Facilities A listing of recycling center locations.	
	Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 08/30/2018 Date Made Active in Reports: 09/18/2018 Number of Days to Update: 19	Source: Department of Health & Enviornmental Control Telephone: 803-896-8985 Last EDR Contact: 08/28/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Varies
INDIAN ODI: Report on the Status of Open Dumps on Indian Lands Location of open dumps on Indian land.		
	Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52	Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 07/30/2018 Next Scheduled EDR Contact: 11/12/2018 Data Release Frequency: Varies
	DEBRIS REGION 9: Torres Martinez Reservation II A listing of illegal dump sites location on the To County and northern Imperial County, Californ	orres Martinez Indian Reservation located in eastern Riverside
	Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 137	Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/17/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: No Update Planned
	ODI: Open Dump Inventory An open dump is defined as a disposal facility Subtitle D Criteria.	that does not comply with one or more of the Part 257 or Part 258
	Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39	Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned
	IHS OPEN DUMPS: Open Dumps on Indian Land	

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 08/06/2014 Date Made Active in Reports: 01/29/2015 Number of Days to Update: 176 Source: Department of Health & Human Serivces, Indian Health Service Telephone: 301-443-1452 Last EDR Contact: 08/03/2018 Next Scheduled EDR Contact: 11/12/2018 Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2018	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/20/2018	Telephone: 202-307-1000
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 08/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: No Update Planned

GA CDL: Clandestine Drug Labs

A listing of clandestine drug lab site locations in the state.

	Date of Government Version: 06/02/2016 Date Data Arrived at EDR: 06/13/2016 Date Made Active in Reports: 08/15/2016 Number of Days to Update: 63	Source: Georgia Bureau of Investigation Telephone: 404-244-2639 Last EDR Contact: 08/07/2018 Next Scheduled EDR Contact: 11/26/2018 Data Release Frequency: Varies
SC (CDL 2: Clandestine Drug Lab Listing A listing of clandestine drug lab site locations.	
	Date of Government Version: 06/04/2018 Date Data Arrived at EDR: 06/19/2018 Date Made Active in Reports: 08/10/2018 Number of Days to Update: 52	Source: South Carolina Law Enforcement Division Telephone: 803-896-7136 Last EDR Contact: 08/27/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Varies
SC (CDL: Clandestine Drug Lab Sites A listing of clandestine drug lab site locations.	
	Date of Government Version: 01/24/2012 Date Data Arrived at EDR: 01/26/2012 Date Made Active in Reports: 02/24/2012 Number of Days to Update: 29	Source: Department of Health & Environmental Control Telephone: 803-896-4288 Last EDR Contact: 08/30/2018 Next Scheduled EDR Contact: 12/17/2018 Data Release Frequency: Varies

GA DEL SHWS: Delisted Hazardous Site Inventory Listing A listing of sites delisted from the Hazardous Site Inventory.

Date of Government Version: 07/01/2018	Source: Department of Natural Resources
Date Data Arrived at EDR: 07/06/2018	Telephone: 404-657-8636
Date Made Active in Reports: 08/13/2018	Last EDR Contact: 09/24/2018
Number of Days to Update: 38	Next Scheduled EDR Contact: 01/07/2019
	Data Release Frequency: Annually

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2018 Date Data Arrived at EDR: 06/20/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 86 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 08/28/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/17/2018 Date Data Arrived at EDR: 08/09/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 01/14/2019 Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/27/2018	Telephone: 202-366-4555
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 09/25/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 01/07/2019
	Data Release Frequency: Quarterly

GA SPILLS: Spills Information

Oil or Hazardous Material Spills or Releases.

Date of Government Version: 05/18/2018	Source: Department of Natural Resources
Date Data Arrived at EDR: 05/22/2018	Telephone: 770-387-4900
Date Made Active in Reports: 06/26/2018	Last EDR Contact: 09/24/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 01/07/2019
	Data Release Frequency: Quarterly

SC SPILLS: Spill List

Spills and releases of petroleum and hazardous chemicals reported to the Oil & Chemical Emergency Response division.

Date of Government Version: 08/29/2018	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 08/30/2018	Telephone: 803-898-4111
Date Made Active in Reports: 09/18/2018	Last EDR Contact: 08/27/2018
Number of Days to Update: 19	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Semi-Annually

GA SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/04/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/11/2013 Number of Days to Update: 39 Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

SC SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/25/2012Source: FirstSearchDate Data Arrived at EDR: 01/03/2013Telephone: N/ADate Made Active in Reports: 03/07/2013Last EDR Contact: 01/03/2013Number of Days to Update: 63Next Scheduled EDR Contact: N/AData Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018 Number of Days to Update: 86 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015 Date Data Arrived at EDR: 07/08/2015 Date Made Active in Reports: 10/13/2015 Number of Days to Update: 97 Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 08/24/2018 Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS Telephone: 888-275-8747 Last EDR Contact: 07/11/2018 Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/13/2018 Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017 Number of Days to Update: 63 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 08/17/2018 Next Scheduled EDR Contact: 11/26/2018 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 06/27/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 100 Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 09/25/2018 Next Scheduled EDR Contact: 01/07/2019 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 08/03/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 73 Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 08/10/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 06/21/2017 Date Made Active in Reports: 01/05/2018 Number of Days to Update: 198 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 09/21/2018 Next Scheduled EDR Contact: 12/31/2018 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 01/10/2018 Date Made Active in Reports: 01/12/2018 Number of Days to Update: 2 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 08/24/2018 Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011 Number of Days to Update: 77

Source: EPA Telephone: 202-564-4203 Last EDR Contact: 07/27/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Annually

12/17/2018

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/17/2018	Source: EPA
Date Data Arrived at EDR: 08/09/2018	Telephone: 703-416-0223
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 10/04/2018
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/1
	Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2018 Date Data Arrived at EDR: 08/22/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 44 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 07/20/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties A listing of verified Potentially Responsible Pa	rties
Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 10/17/2014 Date Made Active in Reports: 10/20/2014 Number of Days to Update: 3	Source: EPA Telephone: 202-564-6023 Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Quarterly
PADS: PCB Activity Database System PCB Activity Database. PADS Identifies gener of PCB's who are required to notify the EPA or	rators, transporters, commercial storers and/or brokers and disposers f such activities.
Date of Government Version: 06/01/2017 Date Data Arrived at EDR: 06/09/2017 Date Made Active in Reports: 10/13/2017 Number of Days to Update: 126	Source: EPA Telephone: 202-566-0500 Last EDR Contact: 07/13/2018 Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Annually
	m (ICIS) supports the information needs of the national enforcement e needs of the National Pollutant Discharge Elimination System (NPDES)
Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 79	Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 10/09/2018 Next Scheduled EDR Contact: 01/21/2019 Data Release Frequency: Quarterly
FTTS tracks administrative cases and pesticid	deral Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) le enforcement actions and compliance activities related to FIFRA, Community Right-to-Know Act). To maintain currency, EDR contacts the
Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009 Number of Days to Update: 25	Source: EPA/Office of Prevention, Pesticides and Toxic Substances Telephone: 202-566-1667 Last EDR Contact: 08/18/2017 Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: Quarterly
FTTS INSP: FIFRA/ TSCA Tracking System - FIFR A listing of FIFRA/TSCA Tracking System (FT	A (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) TS) inspections and enforcements.
Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009 Number of Days to Update: 25	Source: EPA Telephone: 202-566-1667 Last EDR Contact: 08/18/2017 Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: Quarterly
	y Commission and contains a list of approximately 8,100 sites which th are subject to NRC licensing requirements. To maintain currency, s.
Date of Government Version: 08/30/2016 Date Data Arrived at EDR: 09/08/2016 Date Made Active in Reports: 10/21/2016 Number of Days to Update: 43	Source: Nuclear Regulatory Commission Telephone: 301-415-7169 Last EDR Contact: 09/28/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 09/07/2018
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/17/2018
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List A listing of coal combustion residues surface impoundments with high hazard potential ratings.

-	
Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 09/04/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 12/17/2018
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 07/27/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/02/2018 Date Data Arrived at EDR: 07/05/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 92

Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 10/03/2018 Next Scheduled EDR Contact: 01/14/2019 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40	Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2008 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned
DOT OPS: Incident and Accident Data Department of Transporation, Office of Pipeli	ine Safety Incident and Accident data.
Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012 Number of Days to Update: 42	Source: Department of Transporation, Office of Pipeline Safety Telephone: 202-366-4595 Last EDR Contact: 08/09/2018 Next Scheduled EDR Contact: 11/12/2018 Data Release Frequency: Varies
	es isibility and standards for cleanup at NPL (Superfund) sites. Released after settlement by parties to litigation matters.
Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/17/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 80	Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 10/01/2018 Next Scheduled EDR Contact: 12/31/2018 Data Release Frequency: Varies
	system administered by the EPA that collects data on the generation captures detailed data from two groups: Large Quantity Generators (LQG) ties.
Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 02/22/2017 Date Made Active in Reports: 09/28/2017 Number of Days to Update: 218	Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/24/2018 Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Biennially
INDIAN RESERV: Indian Reservations This map layer portrays Indian administered than 640 acres.	lands of the United States that have any area equal to or greater
Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/14/2015 Date Made Active in Reports: 01/10/2017 Number of Days to Update: 546	Source: USGS Telephone: 202-208-3710 Last EDR Contact: 10/09/2018 Next Scheduled EDR Contact: 01/21/2019 Data Release Frequency: Semi-Annually
FUSRAP: Formerly Utilized Sites Remedial Action Program DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.	
Date of Government Version: 08/08/2017 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 3	Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 09/11/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Varies
UMTRA: Uranium Mill Tailings Sites	s for federal government use in national defense programs. When the mills

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017 Date Data Arrived at EDR: 10/11/2017 Date Made Active in Reports: 11/03/2017 Number of Days to Update: 23	Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 08/20/2018 Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Varies
LEAD SMELTER 1: Lead Smelter Sites A listing of former lead smelter site locations.	
Date of Government Version: 07/17/2018 Date Data Arrived at EDR: 08/09/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 57	Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 10/04/2018 Next Scheduled EDR Contact: 01/14/2019 Data Release Frequency: Varies
	re secondary lead smelting was done from 1931and 1964. These sites estion or inhalation of contaminated soil or dust
Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36	Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned
on air pollution point sources regulated by the information comes from source reports by vari steel mills, factories, and universities, and pro	Bystem Facility Subsystem (AFS) nformation Retrieval System (AIRS). AFS contains compliance data U.S. EPA and/or state and local air regulatory agencies. This ious stationary sources of air pollution, such as electric power plants, vides information about the air pollutants they produce. Action, al level plant data. It is used to track emissions and compliance
Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually
US AIRS MINOR: Air Facility System Data A listing of minor source facilities.	
Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually
US MINES: Mines Master Index File Contains all mine identification numbers issue violation information.	d for mines active or opened since 1971. The data also includes
Date of Government Version: 08/01/2018 Date Data Arrived at EDR: 08/29/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 37	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 08/29/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Semi-Annually
	Database Listing I mines are facilities that extract ferrous metals, such as iron

ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008 Number of Days to Update: 49

Source: USGS Telephone: 703-648-7709 Last EDR Contact: 08/31/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011 Number of Days to Update: 97

Source: USGS Telephone: 703-648-7709 Last EDR Contact: 08/31/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 3

Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 09/10/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/07/2018 Date Data Arrived at EDR: 09/05/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 30

Source: EPA Telephone: (404) 562-9900 Last EDR Contact: 09/18/2018 Next Scheduled EDR Contact: 12/17/2018 Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/05/2018	Telephone: 202-564-2280
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 09/05/2018
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/17/2018
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Dete (0	
Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 08/31/2018
Number of Days to Update: 71	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites A listing of unexploded ordnance site locations	3
Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 06/19/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 87	Source: Department of Defense Telephone: 703-704-1564 Last EDR Contact: 07/13/2018 Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Varies
FUELS PROGRAM: EPA Fuels Program Registere This listing includes facilities that are registere Programs. All companies now are required to s	d under the Part 80 (Code of Federal Regulations) EPA Fuels
Date of Government Version: 08/22/2018 Date Data Arrived at EDR: 08/22/2018 Date Made Active in Reports: 10/05/2018 Number of Days to Update: 44	Source: EPA Telephone: 800-385-6164 Last EDR Contact: 08/22/2018 Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Quarterly
GA AIRS: Permitted Facility & Emissions Listing A listing of permitted Air facilities and emission	is data.
Date of Government Version: 08/20/2018 Date Data Arrived at EDR: 08/23/2018 Date Made Active in Reports: 09/21/2018 Number of Days to Update: 29	Source: Department of Natural Resources Telephone: 404-363-7000 Last EDR Contact: 08/17/2018 Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Varies
SC AIRS: Permiited Airs Facility Listing A listing of permitted airs facilities.	
Date of Government Version: 08/28/2018 Date Data Arrived at EDR: 08/29/2018 Date Made Active in Reports: 09/18/2018 Number of Days to Update: 20	Source: Department of Health & Environmental Control Telephone: 803-898-4279 Last EDR Contact: 08/29/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Varies
GA COAL ASH: Coal Ash Disposal Site Listing A listing of coal ash landfills.	
Date of Government Version: 08/01/2014 Date Data Arrived at EDR: 08/05/2014 Date Made Active in Reports: 09/02/2014 Number of Days to Update: 28	Source: Department of Natural Resources Telephone: 404-362-2537 Last EDR Contact: 07/24/2018 Next Scheduled EDR Contact: 11/12/2018 Data Release Frequency: Varies
SC COAL ASH: Coal Ash Disposal Sites A listing of sites with coal ash ponds.	
Date of Government Version: 03/20/2018 Date Data Arrived at EDR: 03/22/2018 Date Made Active in Reports: 04/25/2018 Number of Days to Update: 34	Source: Department of Health & Environmental Control Telephone: 803-898-3964 Last EDR Contact: 09/17/2018 Next Scheduled EDR Contact: 12/31/2018 Data Release Frequency: Varies
GA DRYCLEANERS: Drycleaner Database	

GA DRYCLEANERS: Drycleaner Database A list of drycleaners in the state. The listing includes drycleaner facilities, that use perchloroethylene, that responded to the Notification of Compliance Status forms. It also includes those businesses that are pick-up stores only and do not conduct dry cleaning on site.

Date of Government Version: 12/22/2014 Date Data Arrived at EDR: 12/23/2014 Date Made Active in Reports: 01/27/2015 Number of Days to Update: 35	Source: Department of Natural Resources Telephone: 404-363-7000 Last EDR Contact: 08/17/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Varies
SC DRYCLEANERS: Drycleaner Database The Drycleaning Facility Restoration Trust Fur registered drycleaning sites.	nd database is used to access, prioritze and cleanup contaminated
Date of Government Version: 01/08/2018 Date Data Arrived at EDR: 02/01/2018 Date Made Active in Reports: 03/21/2018 Number of Days to Update: 48	Source: Department of Health & Environmental Control Telephone: 803-898-3882 Last EDR Contact: 08/03/2018 Next Scheduled EDR Contact: 11/12/2018 Data Release Frequency: Annually
GA Financial Assurance 1: Financial Assurance Inf A listing of financial assurance information for	-
Date of Government Version: 06/14/2018 Date Data Arrived at EDR: 09/12/2018 Date Made Active in Reports: 09/21/2018 Number of Days to Update: 9	Source: Department of Natural Resources Telephone: 404-362-4892 Last EDR Contact: 09/12/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Varies
	e facilities. Financial assurance is intended to ensure that resources st-closure care, and corrective measures if the owner or operator
Date of Government Version: 06/12/2018 Date Data Arrived at EDR: 06/15/2018 Date Made Active in Reports: 07/05/2018 Number of Days to Update: 20	Source: Department of Health & Environmental Control Telephone: 803-896-4067 Last EDR Contact: 09/06/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Semi-Annually
GA Financial Assurance 2: Financial Assurance Inf Financial assurance information listing for solid	-
Date of Government Version: 09/10/2018 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 09/21/2018 Number of Days to Update: 10	Source: Department of Natural Resources Telephone: 404-362-2537 Last EDR Contact: 09/10/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Varies
SC Financial Assurance 2: Financial Assurance Info Hazardous waste financial assurance informat	
Date of Government Version: 06/12/2018 Date Data Arrived at EDR: 06/15/2018 Date Made Active in Reports: 07/05/2018 Number of Days to Update: 20	Source: Department of Health & Environmental Control Telephone: 803-898-3880 Last EDR Contact: 09/06/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Varies
SC Financial Assurance 3: Financial Assurance Info UST financial assurance information.	ormation Listing
Date of Government Version: 07/24/2018 Date Data Arrived at EDR: 07/27/2018 Date Made Active in Reports: 08/10/2018 Number of Days to Update: 14	Source: Department of Health & Environmental Control Telephone: 803-898-3880 Last EDR Contact: 09/17/2018 Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

GA NPDES: NPDES Wastewater Permit List

A listing of NPDES wastewater permits issued by the Watershed Protection Branch.

Date of Government Version: 08/01/2018 Date Data Arrived at EDR: 08/07/2018 Date Made Active in Reports: 08/13/2018 Number of Days to Update: 6 Source: Department of Natural Resoruces Telephone: 404-362-2680 Last EDR Contact: 08/07/2018 Next Scheduled EDR Contact: 11/19/2018 Data Release Frequency: Varies

SC NPDES: Waste Water Treatment Facilities Listing A listing of waste water treatment facility locations.

Date of Government Version: 07/24/2018	Source: Department of Health & Environmental Control
Date Data Arrived at EDR: 07/26/2018	Telephone: 803-898-4300
Date Made Active in Reports: 08/10/2018	Last EDR Contact: 07/20/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

GA TIER 2: Tier 2 Data Listing

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2016SourDate Data Arrived at EDR: 08/25/2017TelepDate Made Active in Reports: 10/30/2017Last

Source: Department of Natural Resources Telephone: 404-656-4852 Last EDR Contact: 08/27/2018 Next Scheduled EDR Contact: 12/10/2018 Data Release Frequency: Annually

EDR HIGH RISK HISTORICAL RECORDS

Number of Days to Update: 66

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

GA RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Georgia.

Date of Government Version: N/A	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

SC RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health and Environmental Control in South Carolina.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/03/2014 Number of Days to Update: 186 Source: Department of Health and Environmental Control Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

GA RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Natural Resources in Georgia.

Date of Government Version: N/A	Source: Department of Natural Resources
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

SC RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health and Environmental Control in South Carolina.

Date of Government Version: N/A	Source: Department of Health and Environmental Control
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/15/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 198	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GA RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Environmental Protection Division in Georgia.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/24/2013 Number of Days to Update: 176 Source: Environmental Protection Division Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

SC RGA LUST: Recovered Government Archive Leaking Underground Storage Tank The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health and Environmental Control in South Carolina.

Date of Government Version: N/ASource: Department of Health and Environmental ControlDate Data Arrived at EDR: 07/01/2013Telephone: N/ADate Made Active in Reports: 01/03/2014Last EDR Contact: 06/01/2012Number of Days to Update: 186Next Scheduled EDR Contact: N/AData Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Number of Days to Update: 30

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/10/2018 Date Data Arrived at EDR: 08/10/2018 Date Made Active in Reports: 09/10/2018 Number of Days to Update: 31	Source: Department of Energy & Environmental Protection Telephone: 860-424-3375 Last EDR Contact: 08/09/2018 Next Scheduled EDR Contact: 11/26/2018 Data Release Frequency: No Update Planned
NJ MANIFEST: Manifest Information Hazardous waste manifest information.	
Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 07/13/2018 Date Made Active in Reports: 08/01/2018 Number of Days to Update: 19	Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 10/09/2018 Next Scheduled EDR Contact: 01/21/2019 Data Release Frequency: Annually
NY MANIFEST: Facility and Manifest Data Manifest is a document that lists and tracks ha	azardous waste from the generator through transporters to a TSD

facility.Source: Department of Environmental ConservationDate of Government Version: 07/01/2018Source: Department of Environmental ConservationDate Data Arrived at EDR: 08/01/2018Telephone: 518-402-8651Date Made Active in Reports: 08/31/2018Last EDR Contact: 08/01/2018

Last EDR Contact: 08/01/2018 Next Scheduled EDR Contact: 11/12/2018 Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information Hazardous waste manifest information.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 07/25/2017 Date Made Active in Reports: 09/25/2017 Number of Days to Update: 62

RI MANIFEST: Manifest information Hazardous waste manifest information

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 02/23/2018 Date Made Active in Reports: 04/09/2018 Number of Days to Update: 45 Source: Department of Environmental Protection Telephone: 717-783-8990 Last EDR Contact: 07/12/2018 Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Annually

Source: Department of Environmental Management Telephone: 401-222-2797 Last EDR Contact: 08/21/2018 Next Scheduled EDR Contact: 12/03/2018 Data Release Frequency: Annually

WI MANIFEST: Manifest Information Hazardous waste manifest information.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 06/15/2018 Date Made Active in Reports: 07/09/2018 Number of Days to Update: 24 Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 09/06/2018 Next Scheduled EDR Contact: 12/24/2018 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools Source: National Center for Education Statistics Telephone: 202-502-7300 The National Center for Education Statistics' primary database on private school locations in the United States. Daycare Centers: Child Care Centers Source: Department of Human Resources Telephone: 404-651-5562

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Source: Georgia GIS Clearinghouse Telephone: 706-542-1581

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SAVANNAH LOCK AND DAM 1853 LOCK AND DAM ROAD AUGUSTA, GA 30901

TARGET PROPERTY COORDINATES

Latitude (North):	33.372924 - 33° 22' 22.53"
Longitude (West):	81.940389 - 81° 56' 25.40"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	412520.7
UTM Y (Meters):	3692833.0
Elevation:	114 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: Version Date:	6046007 MECHANIC HILL, GA 2014
North Map:	6044439 AUGUSTA EAST, GA
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- Groundwater flow direction, and
 Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

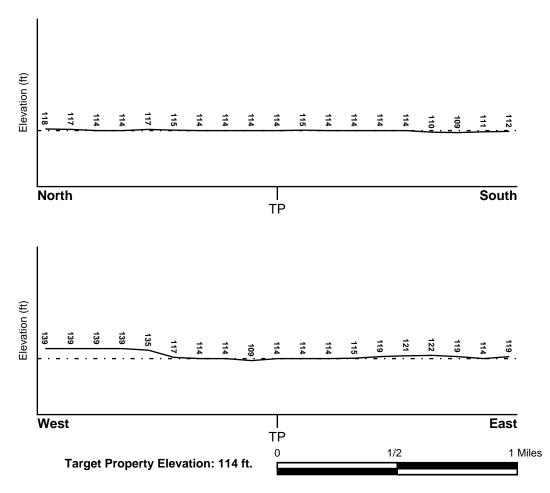
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
45003C0627E	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
45003C0489E 45003C0493E 45003C0631E	FEMA FIRM Flood data FEMA FIRM Flood data FEMA FIRM Flood data
NATIONAL WETLAND INVENTORY	
	NWI Electronic
NWI Quad at Target Property	Data Coverage
MECHANIC HILL	YES - refer to the Overview Map and Detail

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW Map

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

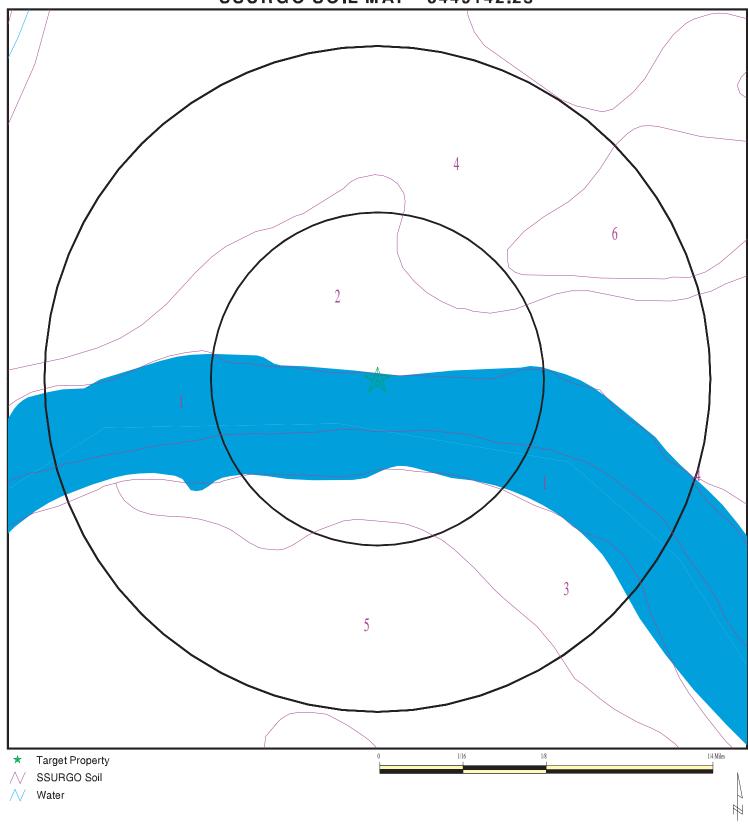
ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	Mesozoic	Category:	Stratified Sequence
System:	Cretaceous		
Series:	Woodbine and Tuscaloosa Groups		
Code:	uK1 (decoded above as Era, System & Se	eries)	

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).





SITE NAME:	Savannah Lock and Dam 1853 Lock and Dam Road
ADDRESS:	1853 Lock and Dam Road
	Augusta GA 30901
LAT/LONG:	33.372924 / 81.940389

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name:	Water
Soil Surface Texture: Hydrologic Group:	Not reported
Soil Drainage Class: Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Not Reported
Corrosion Potential - Uncoated Steel: Depth to Bedrock Min:	Not Reported > 0 inches
	-

Soil Map ID: 2	
Soil Component Name:	Riverview
Soil Surface Texture:	silt loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 122 inches

	Soil Layer Information									
	Bou	Indary		Classi	fication	Saturated hydraulic				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)			
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 4.5			
2	7 inches	33 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 4.5			
3	33 inches	64 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 4.5			

Soil Map ID: 3	
Soil Component Name:	ТОССОА
Soil Surface Texture: Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Moderately well drained
Hydric Status: Partially hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 114 inches

	Soil Layer Information										
	Bou	ndary		Classif	ication	Saturated hydraulic					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)				
1	0 inches	9 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 6.5 Min: 5.1				
2	9 inches	72 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 6.5 Min: 5.1				

Soil Map ID: 4	
Soil Component Name:	Chewacla
Soil Surface Texture:	silt loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Somewhat poorly drained
Hydric Status: Partially hydric	
Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 31 inches

	Soil Layer Information									
	Boundary			Classi	Classification					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	hydraulic conductivity micro m/sec				
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 4.5			
2	5 inches	22 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 4.5			

	Soil Layer Information									
Layer	Bou	indary		Classi	fication	Saturated hydraulic	Soil Reaction (pH)			
	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec				
3	22 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 4.5			

Soil Map ID: 5	
Soil Component Name:	SHELLBLUFF
Soil Surface Texture: Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 122 inches

	Soil Layer Information										
	Bou	ndary		Classif	ication	Saturated hydraulic					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil						
1	0 inches	5 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 6.5 Min: 4.5				
2	5 inches	70 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 6.5 Min: 4.5				

Soil Map ID: 6	
Soil Component Name:	Hydraquents
Soil Surface Texture:	mucky silty clay loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information								
	Βοι	undary		Classification		Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)		
1	0 inches	7 inches	mucky silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 5.5 Min: 3.6		
2	7 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 5.5 Min: 3.6		

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
1	USGS40000262835	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No PWS System Found	t	

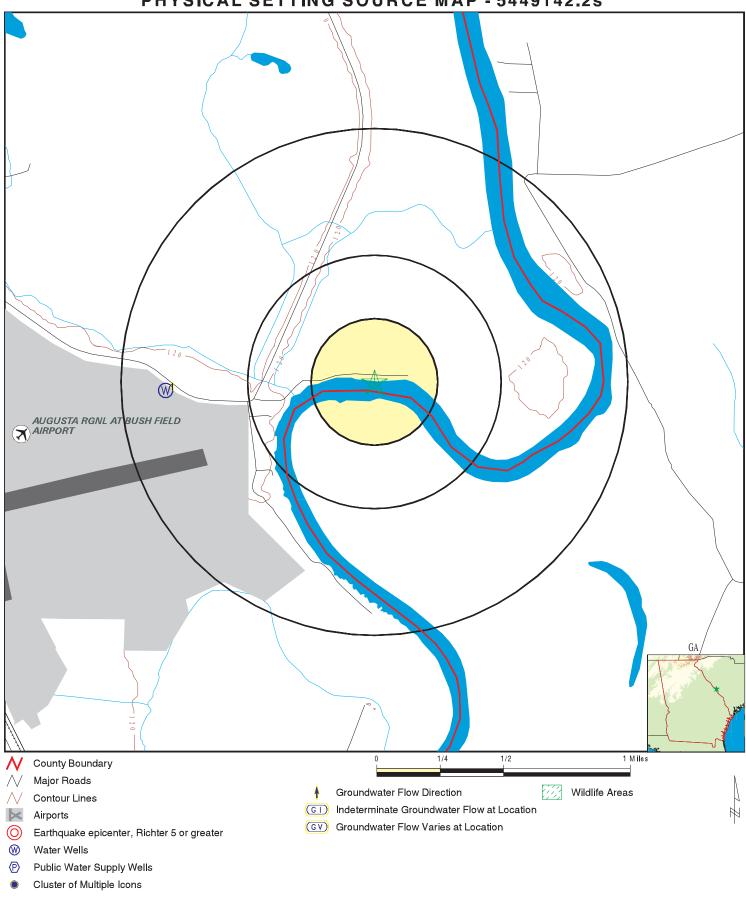
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID No Wells Found WELL ID

LOCATION FROM TP

PHYSICAL SETTING SOURCE MAP - 5449142.2s



SITE NAME:Savannah Lock and DamCLIENT:U.S. Army Corp of EngineersADDRESS:1853 Lock and Dam Road Augusta GA 30901CONTACT:Renee HillLAT/LONG:33.372924 / 81.940389DATE:October 10, 2018 9:30 am
--

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 West 1/2 - 1 Mile Higher			FED USGS	USGS40000262835
Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Ce	
Monitor Location:	30AA34	Type:	Well	Ū.
Description:	Augusta Regional Airport Obs#2			
HUC:	Not Reported	Drainage Area:	Not F	Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not F	Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not F	Reported
Formation Type:	Midville Aquifer System, Lower Aquifer			
Aquifer Type:	Not Reported	Construction Date:	Not F	Reported
Well Depth:	220	Well Depth Units:	ft	-
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not F	Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for RICHMOND County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L. : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 30901

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Source: Georgia GIS Clearinghouse Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS) This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Georgia Public Supply Wells Source: Georgia Department of Community Affairs Telephone: 404-894-0127

USGS Georgia Water Wells Source: USGS, Georgia District Office Telephone: 770-903-9100

DNR Managed Lands

Source: Department of Natural Resources

Telephone: 706-557-3032

This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information

Source: USGS Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA Telephone: 703-356-4020 Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

APPENDIX E

Historical Aerial Photographs and Topographic Maps

Savannah Lock and Dam

1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.8 October 10, 2018

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Site Name:

Client Name:

10/10/18

Savannah Lock and Dam 1853 Lock and Dam Road Augusta, GA 30901 EDR Inquiry # 5449142.8

U.S. Army Corp of Engineers 100 West Oglethorpe ave Savannah, GA 31402 Contact: Renee Hill



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search	Results:			
<u>Year</u>	Scale	Details	Source	
2017	1"=500'	Flight Year: 2017	USDA/NAIP	
2013	1"=500'	Flight Year: 2013	USDA/NAIP	
2010	1"=500'	Flight Year: 2010	USDA/NAIP	
2007	1"=500'	Flight Year: 2007	USDA/NAIP	
1993	1"=500'	Acquisition Date: February 01, 1993	USGS/DOQQ	
1988	1"=500'	Flight Date: March 01, 1988	USGS	
1981	1"=500'	Flight Date: February 27, 1981	USDA	
1977	1"=500'	Flight Date: March 08, 1977	USDA	
1964	1"=500'	Flight Date: October 07, 1964	USGS	
1957	1"=500'	Flight Date: December 01, 1957	USDA	
1941	1"=500'	Flight Date: March 04, 1941	USDA	
1938	1"=500'	Flight Date: February 07, 1938	USDA	

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

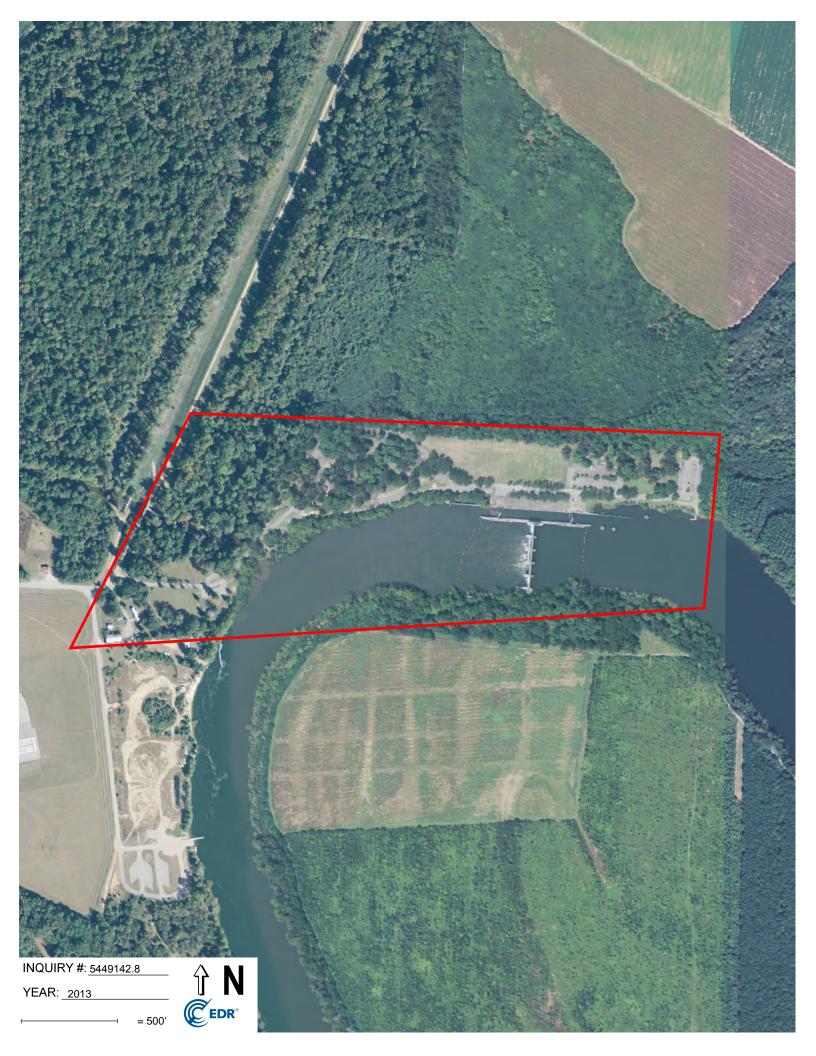
Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing on prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

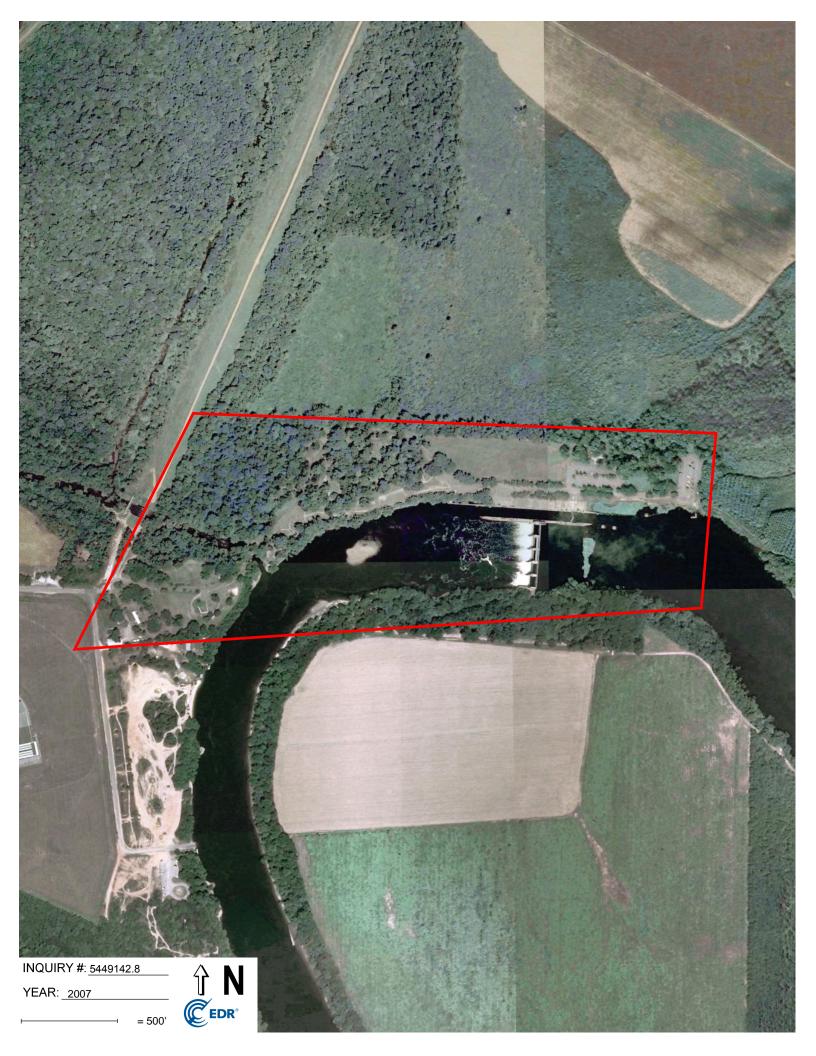
Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

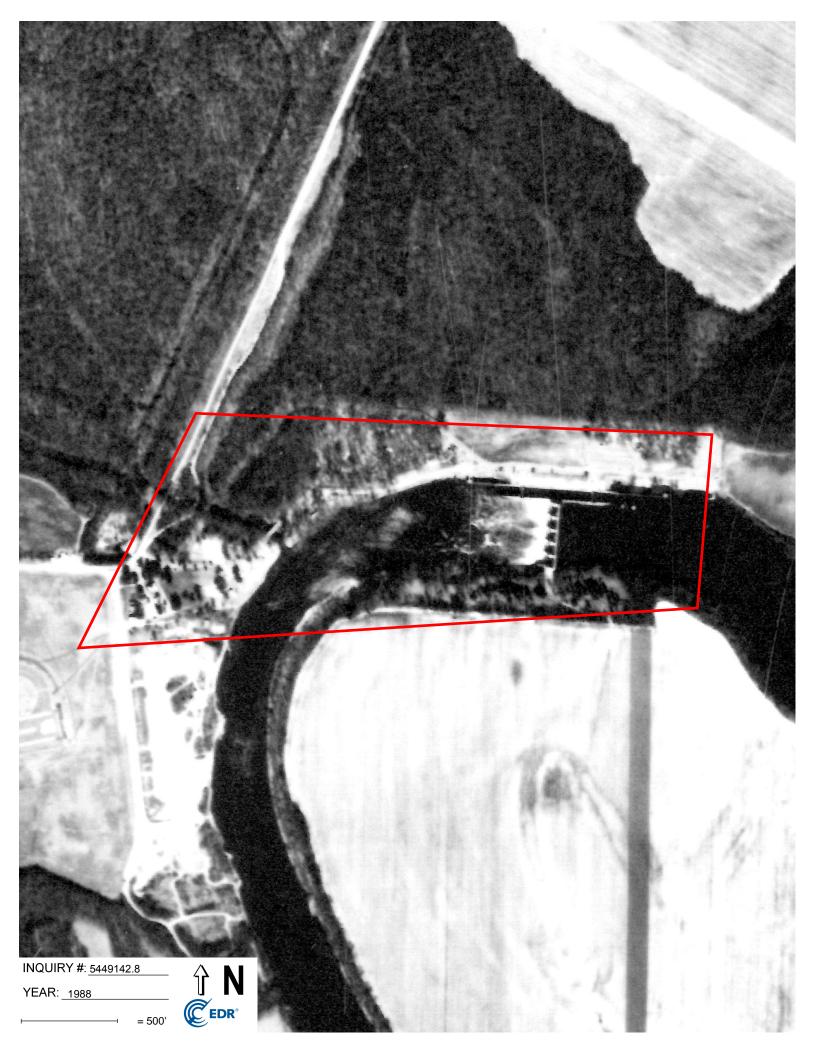




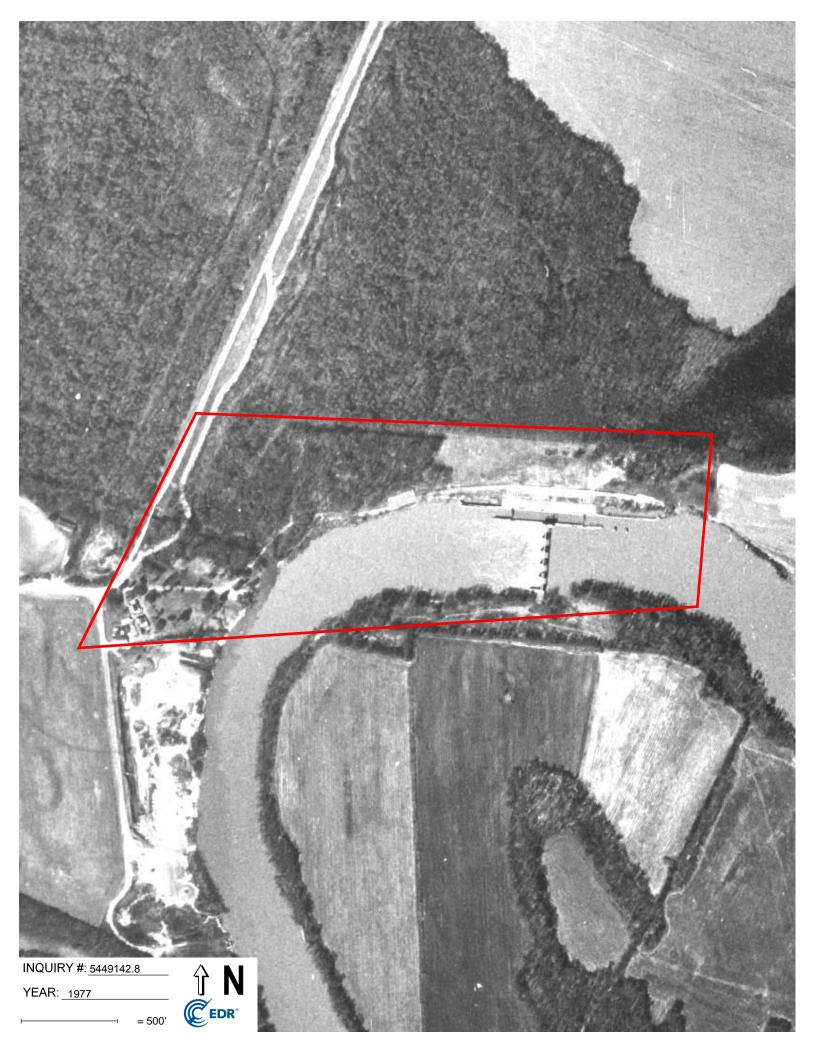


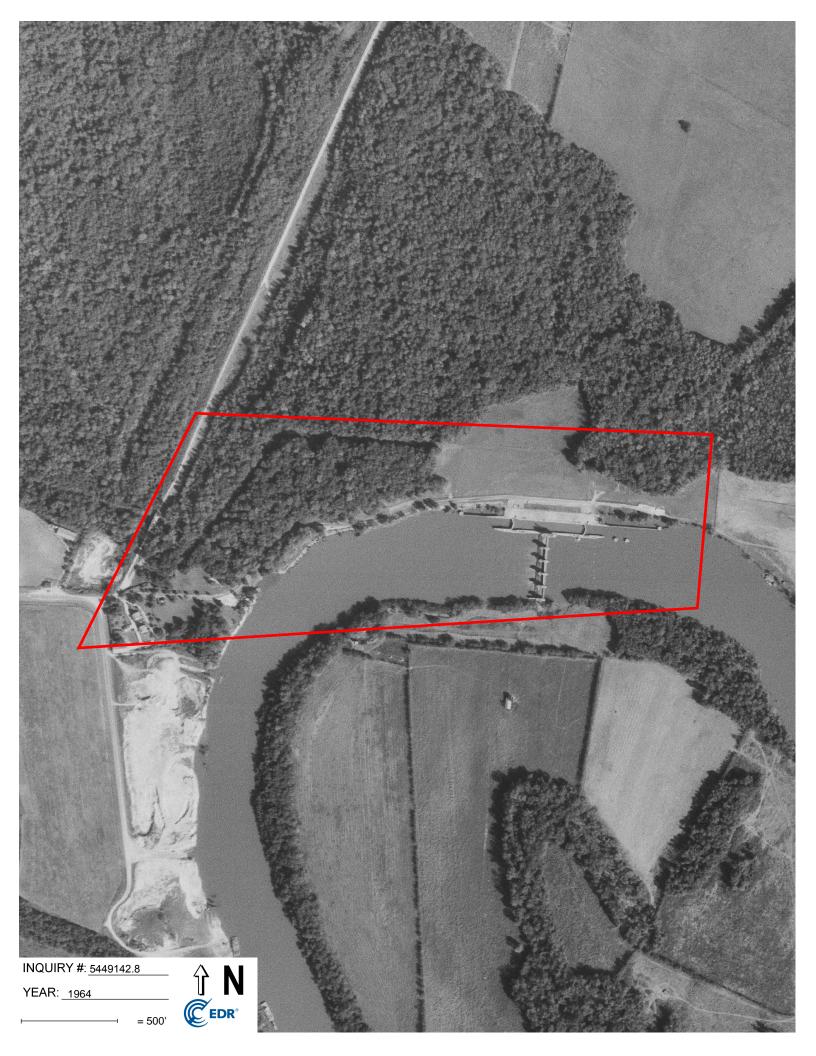


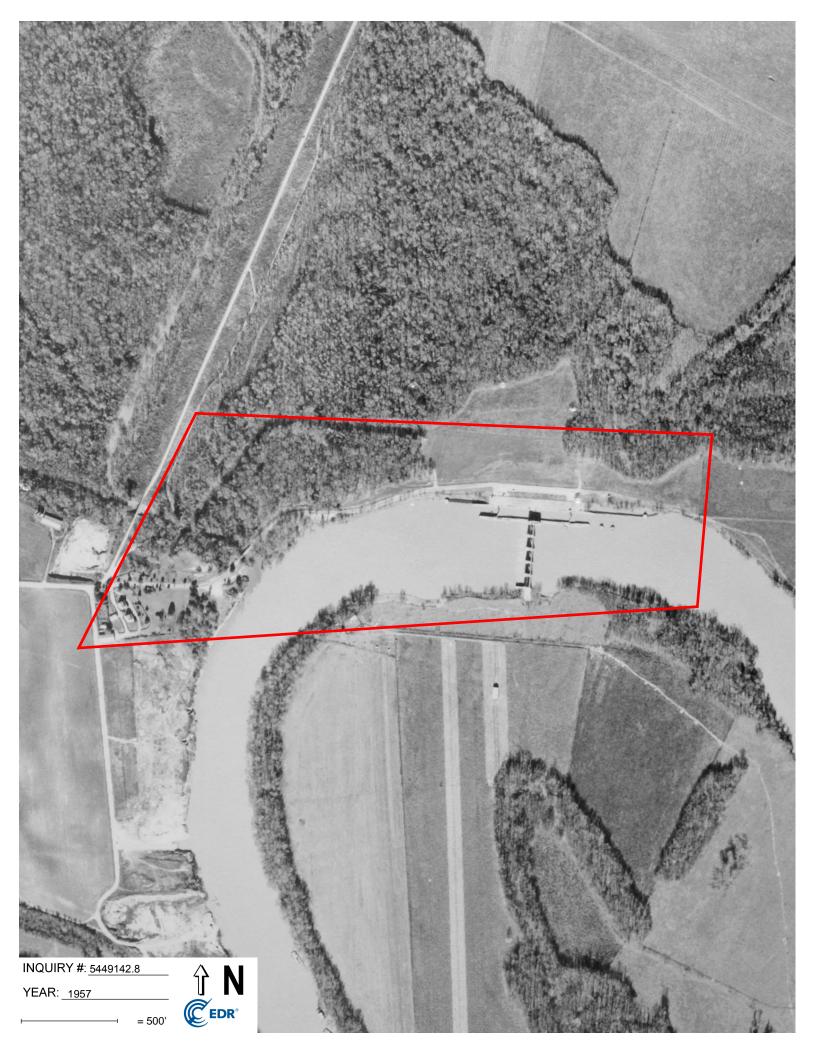


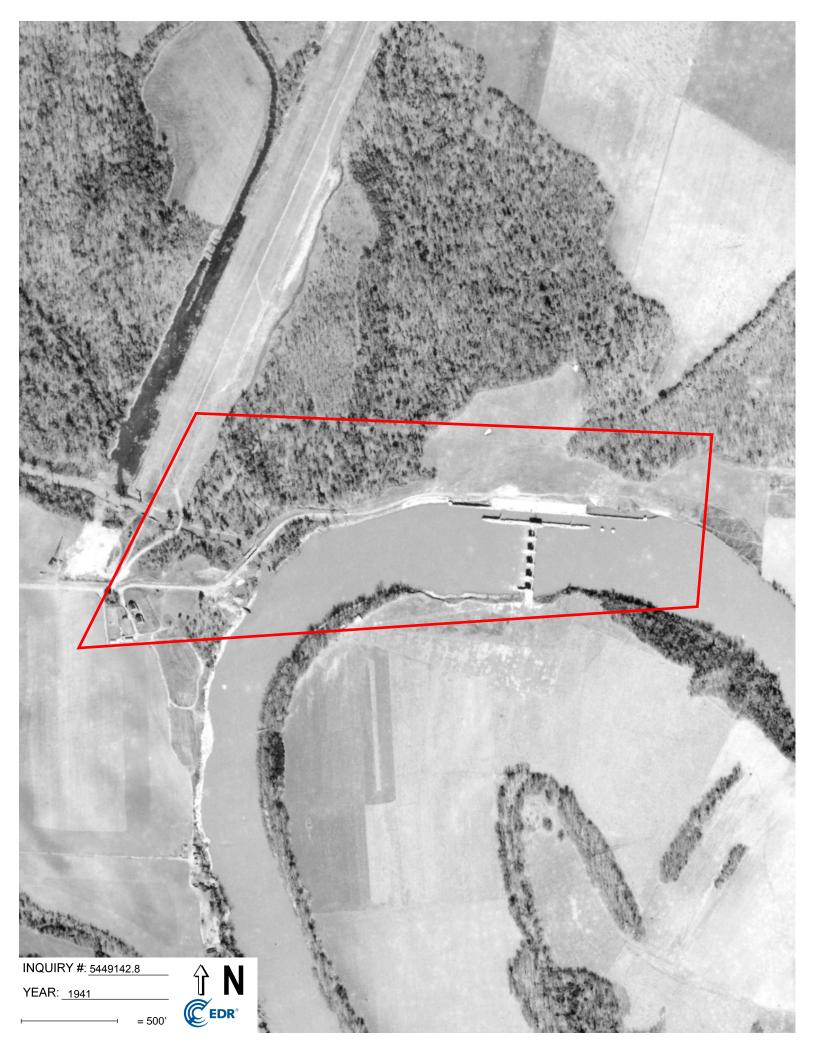














Savannah Lock and Dam 1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.4 October 10, 2018

EDR Historical Topo Map Report with QuadMatch™



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

EDR Historical Topo Map Report

Site Name:

Savannah Lock and Dam

1853 Lock and Dam Road

EDR Inquiry # 5449142.4

Augusta, GA 30901

Client Name:

U.S. Army Corp of Engineers 100 West Oglethorpe ave Savannah, GA 31402 Contact: Renee Hill



10/10/18

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by U.S. Army Corp of Engineers were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		Coordinates:	Coordinates:	
P.O.#	W33SJG82829799	Latitude:	33.372924 33° 22' 23" North	
Project:	Savannah Lock and Dam	Longitude:	-81.940389 -81° 56' 25" West	
-		UTM Zone:	Zone 17 North	
		UTM X Meters:	412522.64	
		UTM Y Meters:	3693025.49	
		Elevation:	114.00' above sea level	
Maps Provide	ed:			
2014				
1995				
1981				
1971				
1965				
1948				
1943				
1921				

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provide in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Augusta East 2014 7.5-minute, 24000



Mechanic Hill 2014 7.5-minute, 24000

1995 Source Sheets



Augusta East 1995 7.5-minute, 24000 Aerial Photo Revised 1995

1981 Source Sheets



Mechanic Hill 1981 7.5-minute, 24000 Aerial Photo Revised 1977

Augusta East 1981 7.5-minute, 24000 Aerial Photo Revised 1977

1971 Source Sheets



Mechanic Hill 1971 7.5-minute, 24000 Aerial Photo Revised 1971



Augusta East 1971 7.5-minute, 24000 Aerial Photo Revised 1971

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

Augusta East

7.5-minute, 24000

Aerial Photo Revised 1962

1965

1965 Source Sheets



Mechanic Hill 1965 7.5-minute, 24000 Aerial Photo Revised 1962





AUGUSTA 1948 15-minute, 50000

1943 Source Sheets

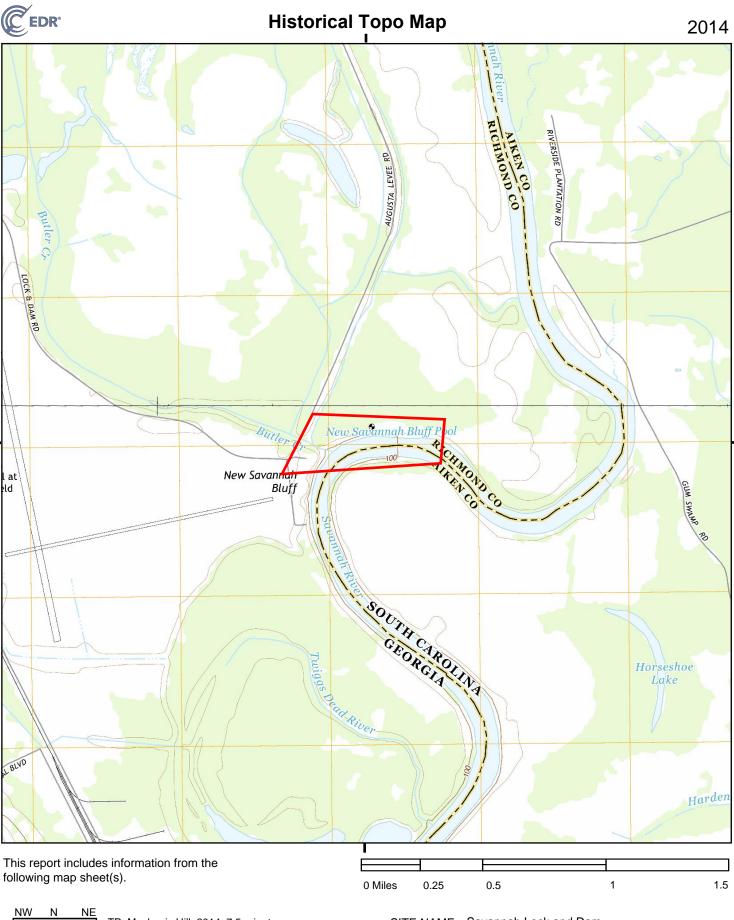


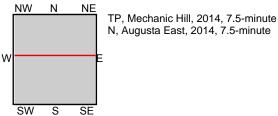
Augusta 1943 15-minute, 62500 Aerial Photo Revised 1941

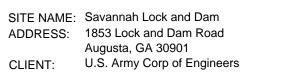
1921 Source Sheets

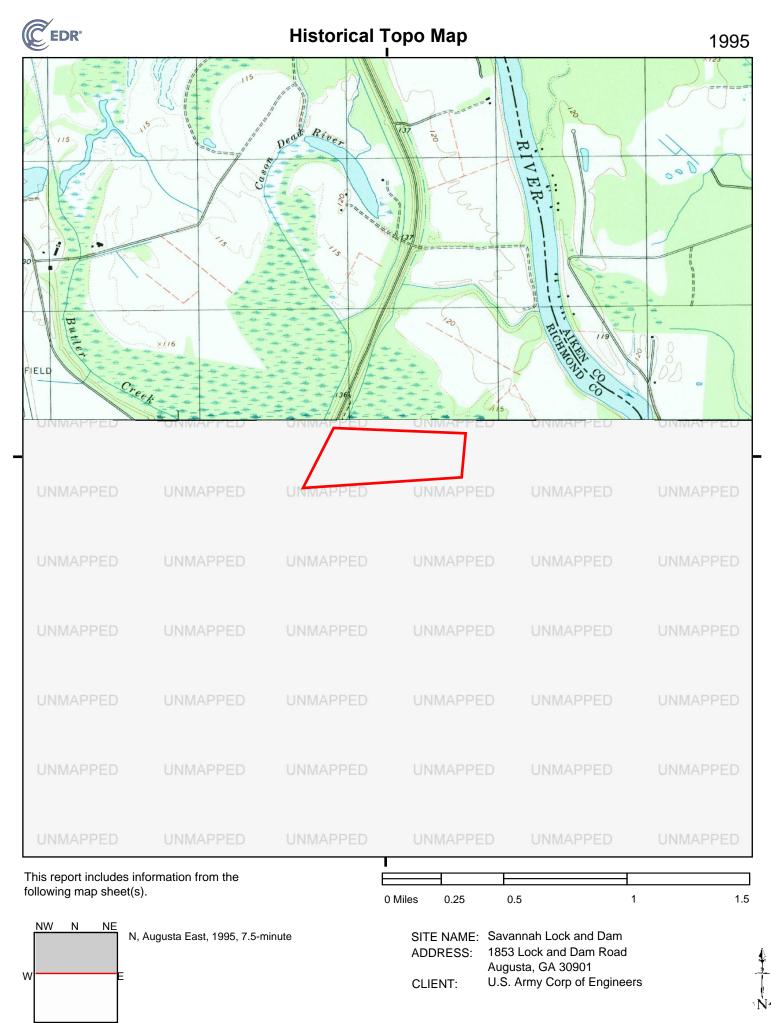


Augusta 1921 15-minute, 62500







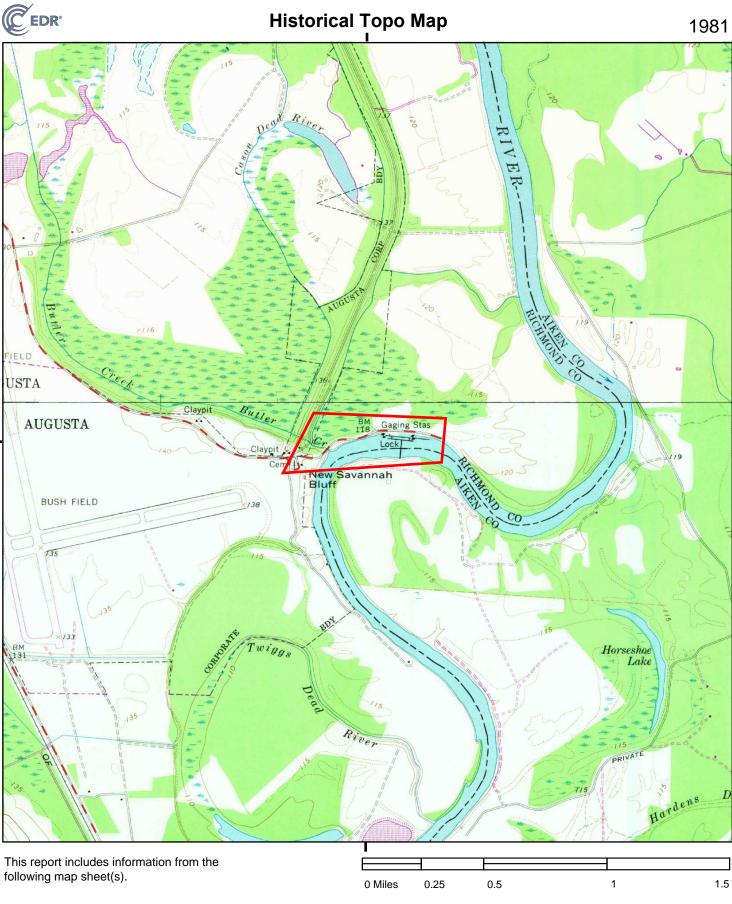


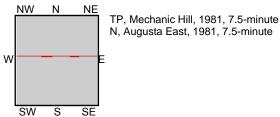
SW

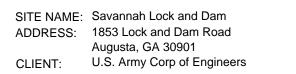
S

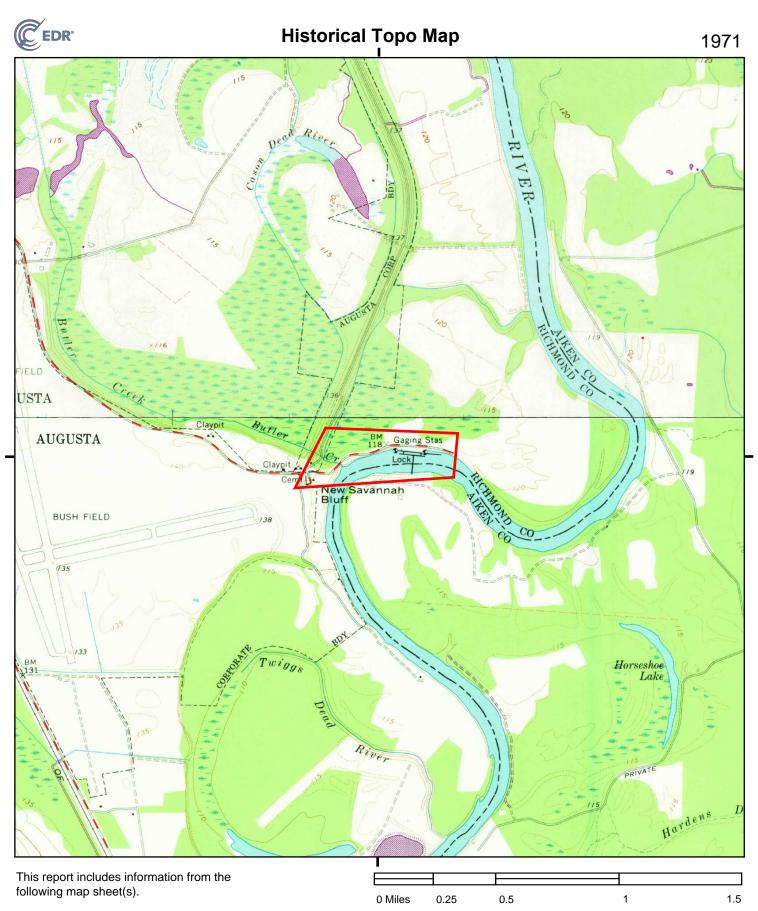
SE

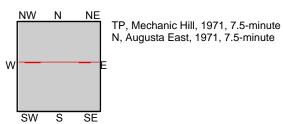
5449142 - 4 page 6





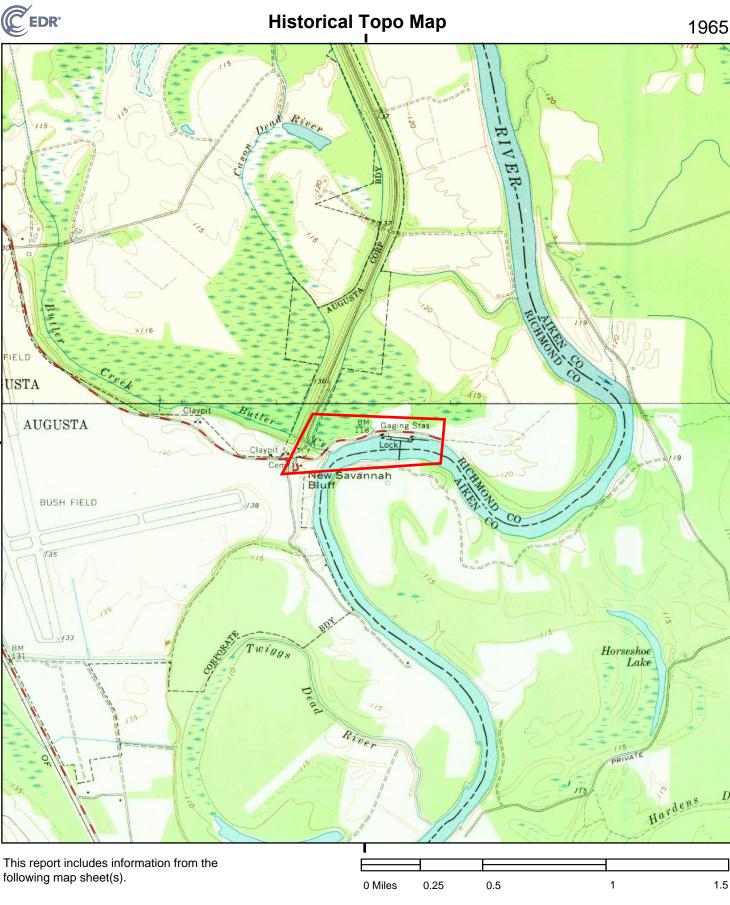


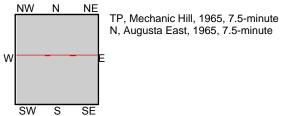


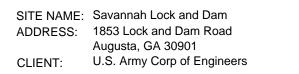


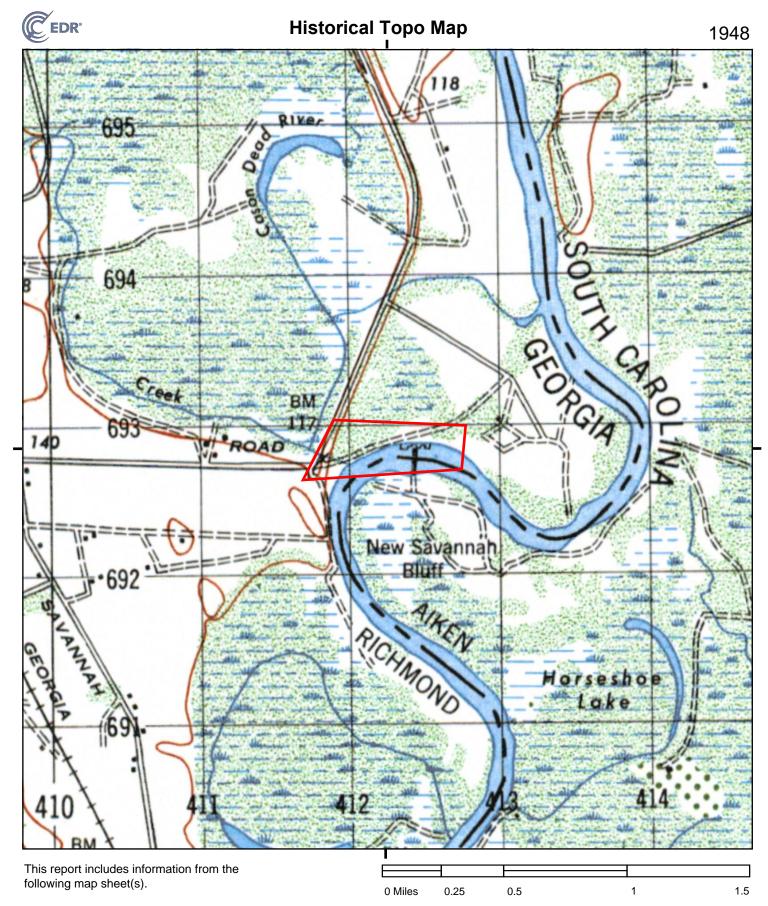
SITE NAME.	Savannah Lock and Dam
•••=••	1853 Lock and Dam Road
, 10 B 1 (200).	Augusta, GA 30901
CLIENT:	U.S. Army Corp of Engineers

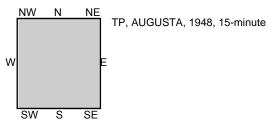
٠N



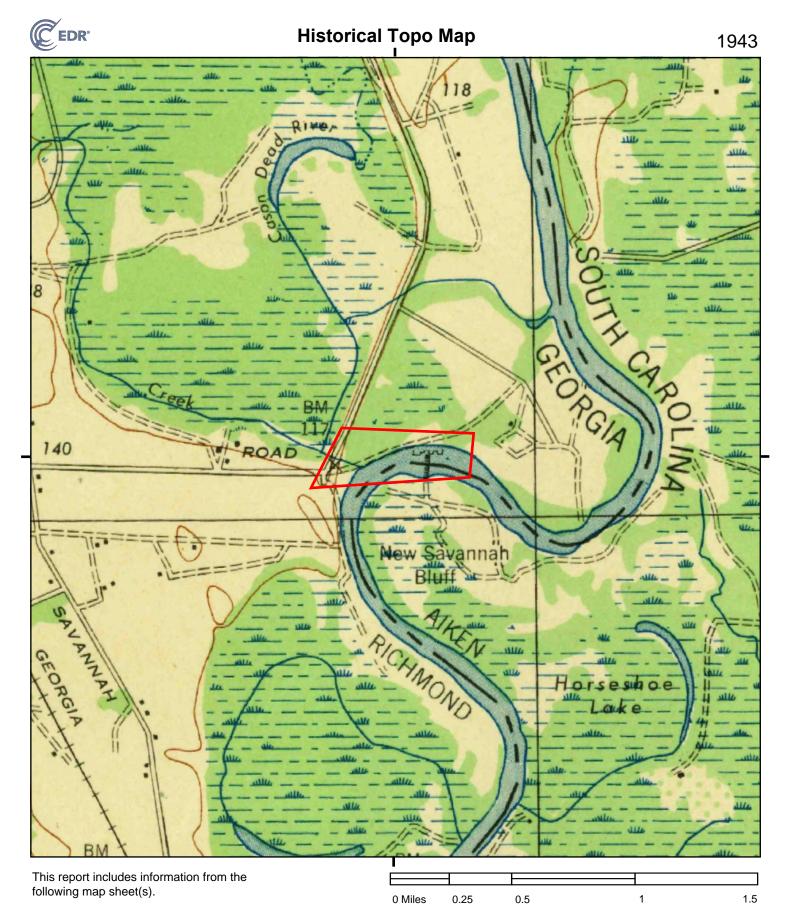


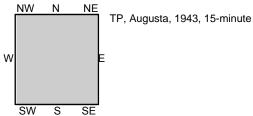




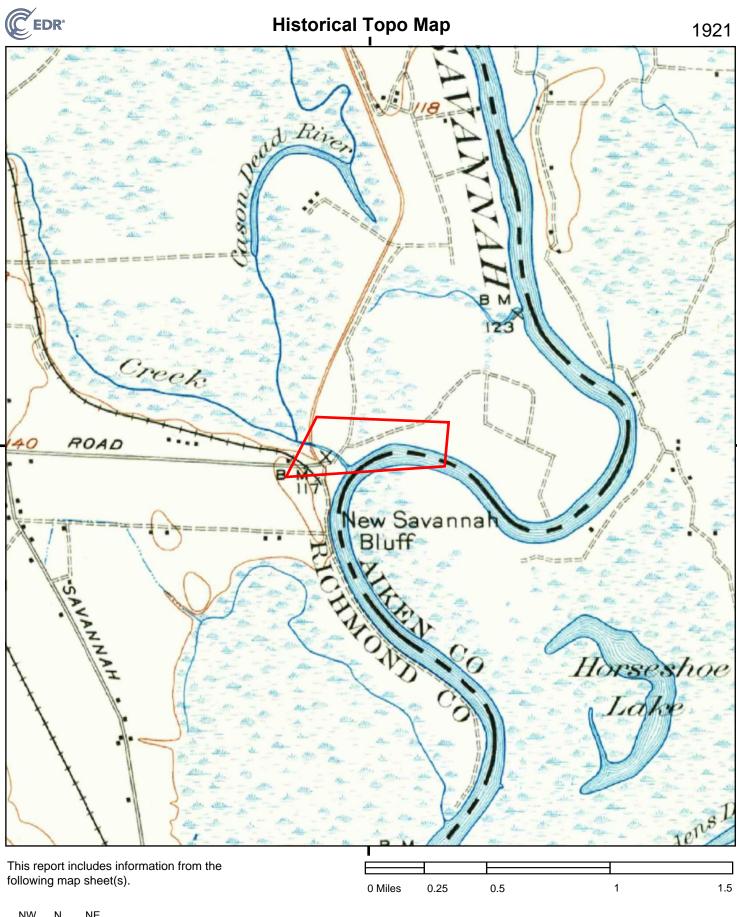


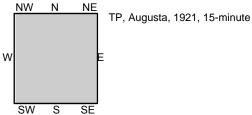
SITE NAME:	Savannah Lock and Dam
ADDRESS:	1853 Lock and Dam Road
	Augusta, GA 30901
CLIENT:	U.S. Army Corp of Engineers

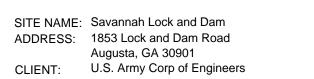




SITE NAME: Savannah Lock and Dam ADDRESS: 1853 Lock and Dam Road Augusta, GA 30901 CLIENT: U.S. Army Corp of Engineers







Savannah Lock and Dam 1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.3 October 10, 2018

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report 10/10/18		
Site Name:	Client Name:	
Savannah Lock and Dam	U.S. Army Corp of Engineers	EDR °
1853 Lock and Dam Road	100 West Oglethorpe ave	
Augusta, GA 30901	Savannah, GA 31402	
EDR Inquiry # 5449142.3	Contact: Renee Hill	

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by U.S. Army Corp of Engineers were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 53EE-4C30-9E56

PO # W33SJG82829799

Project Savannah Lock and Dam

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results Certification #: 53EE-4C30-9E56

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

University Publications of America

EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

U.S. Army Corp of Engineers (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provide in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.



Hazardous Building Materials Survey

New Savannah Bluff Lock & Dam Augusta, Georgia

Prepared by Timothy A. Jones

Environmental and Materials Unit

Savannah District



The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

April 2017

New Savannah Bluff Lock & Dam Augusta, Georgia

By Timothy A. Jones

Final Report

Prepared for

US Army Corps of Engineers Savannah District

Hazardous Building Materials Survey Report

Introduction

Background

The lock and dam is a concrete structure constructed in the late 1930s timeframe. The structure consists of a dam, a lock and a concrete control/operations building.

Description of study

Investigation

This report documents the Hazardous Building Materials survey of the New Savannah Bluff Lock & Dam at Augusta, Georgia conducted on 26 April 2017 by USACE Savannah District employee Tim Jones. The survey consists of a walk-through of the building and a visual estimation of materials present. This survey does not include asbestos as it is covered by a separate investigation. Quantities listed in this report are rough field estimates only and must be verified by the contractor prior to commencement of any work.

Conclusions

The information gathered during the survey of the structure is listed below:

- *a. Light Count:* The fluorescent and mercury vapor light count results are presented in Table 1.
- *b. Lead Building Materials:* Lead joints are used in some sections of older electrical wiring. Approximately 20 two foot long sections are assumed to exist.
- *c. Compressed Refrigerant Gas:* One window air conditioner was located in the building. This equipment is assumed to contain refrigerant gas that should be recovered prior to disposal.

- *d. Fire Extinguishers:* Two portable fire extinguishers were located in the building.
- *e. Transformers:* One small transformer was located within an electrical cabinet in the building.
- f. Lead-Based Paint: Eight paint chip samples were collected from painted concrete wall and ceiling surfaces and submitted for analysis. Many layers of paint exist in these areas. Most samples contained varying levels of lead, however only one contained lead above the EPA/HUD defined definition for lead-based paint of 0.5% by weight. Since lead was found in the paint samples, OSHA worker protection rules apply to disturbance of the painted materials. Other Federal and/or State regulations may apply and the contractor must determine and adhere to all applicable regulations. These samples do not constitute a full lead-based paint survey and were collected for informational purposes only. Sample information is included in Table 2. Sample locations are indicated on Figures included in this report after Table 2. A scanned copy of the laboratory's analytical report follows as Appendix "A". Approximately 9000 square feet of painted concrete walls and ceilings were located. Metal surfaces quantities were not calculated as they are expected to be recycled.
- *g. Motor Oil:* Approximately three gallons of motor oil is assumed to exist within the emergency generator. One partially filled 55 gallon waste oil drum was located in the facility.
- *h. Hydraulic Oil:* Approximately 500 gallons of hydraulic oil is assumed to exist within the mechanical equipment used to operate gates and in 3 five gallon containers.
- *i. Antifreeze Solution:* Approximately 10 gallons of antifreeze is assumed to exist within the emergency generator.
- *j. Automotive Batteries:* Two automotive style batteries were located adjacent to the emergency generator.
- *k. Above Ground Storage Tank:* One above ground storage tank for diesel fuel of approximately 250 gallons serving the emergency generator was located at the facility.

Tables

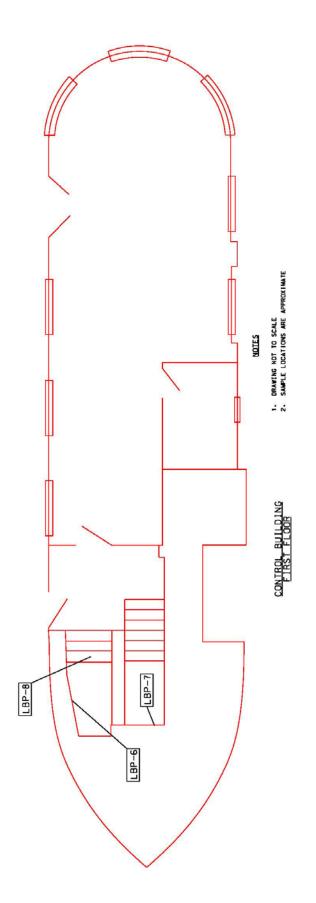
TABLE 1FLORESCENT AND MERCURY LIGHT FIXTURES

AREA IDENTIFICATION	# & TYPE LIGHTS PRESENT	DESCRIPTION OF LIGHTS
Exterior	30	Mercury vapor bulb fixtures

TABLE 2LEAD BASED PAINT SAMPLE INFORMATION

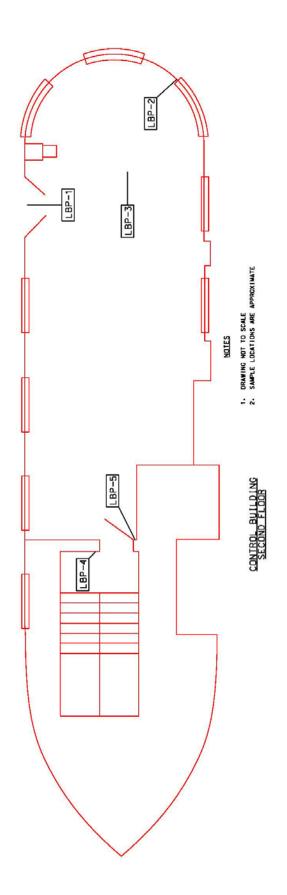
Sample Number	Description	Location	Analytical Result
NSB-LBP-1	Off white on concrete wall, damaged	Second floor, above outside door	0.021%
NSB-LBP-2	Green on concrete, damaged	Second floor, above window	1.0%
NSB-LBP-3	Off white on concrete ceiling deck, damaged	Second floor ceiling	0.12%
NSB-LBP-4	Off white on concrete wall, damaged	Second floor, stairwell	None Detected
NSB-LBP-5	Off white and green on concrete wall, damaged	Second floor, by door to stairwell	0.078%
NSB-LBP-6	Green on concrete wall, damaged	First floor, stairwell	0.013%
NSB-LBP-7	Green on concrete wall, damaged	First floor, stairwell	None Detected
NSB-LBP-8	Gray on concrete stairs, damaged	First floor, stairwell	0.22%

FIGURE 1



4

FIGURE 2



APPENDIX "A"

LABORATORY ANALYTICAL REPORT



May 04, 2017

Tim Jones US ARMY COE 200 North Cobb Parkway Suite 404 Marietta, GA 30062

Bureau Veritas Work Order No. 17041797

Reference: US ARMY COE / NEW SAVANNAH BLUFF LOCK & DAM

Dear Tim Jones:

Bureau Veritas North America, Inc. received 8 samples on April 28, 2017 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely, Sir born

Mike Wantland Client Services Representative Electronic signature authorized through password protection cc: Mike Wantland

Burcau Veritas North America, Inc. (India Sunity, and University Series) 22375 Roythel Unive Nove, M1 18573

Marie (248) 248/1770 Fax: (248) 344(2055 www.iiabureauxemas.com

1 of 5



CASE NARRATIVE

Date: 04-May-17

CLIENT:	US ARMY COE
Project:	US ARMY COE / NEW SAVANNAH BLUFF LOCK & DAM
Work Order No	17041797

Bureau Veritas North America is accredited by the AIHA-LAP, LLC ELLAP program as laboratory number 100967. ELLAP meets the requirements of the National Lead Laboratory Accreditation Program (NLLAP), established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis.

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, 1) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, 2) all samples were received in acceptable condition, and 3) results for all solid matrices are reported "as received," not corrected for moisture content.



Date: 04-May-17

Client:	US ARMY COE					Work Or	der: 17041797	1
Project:	US ARMY COE / N	EW SAVAI	NAH BLUF	FLOC	K & DA			
Lab ID:	17041797-001				Collec	tion Date: 4/26/	2017	5
Client Sample ID	: NSB-LBP-1					Matrix: PAI	VT CHIP	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	C, PAINT CHIPS	0.021	0.0093		wt%	1	5/3/2017 8:22:56 AM	DH
Lab ID:	17041797-002				Colle	tion Date: 4/26/	2017	
Client Sample ID	: NSB-LBP-2					Matrix: PAI	Т СНІР	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	, PAINT CHIPS	1.0	0.0085		wt%	1	5/3/2017 8:33:31 AM	DH
Lab ID:	17041797-003				Colle	tion Date: 4/26/	2017	â
Client Sample ID): NSB-LBP-3					Matrix: PAI	VI CHIP	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	C, PAINT CHIPS	0.12	0.0094		wt%	1	5/3/2017 8:35:15 AM	DH
Lab ID:	17041797-004				Collec	tion Date: 4/26/	2017	
Client Sample ID	: NSB-LBP-4					Matrix: PAI	T CHIP	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/ 6010C Lead	C, PAINT CHIPS	ND	0.0079		wt%	1	5/3/2017 8:36:59 AM	DH

Qualifiers: ND - Not D etected at the Reporting Limit (RL).

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

*-Value exceeds Maximum Contaminant Level

 ${\rm S}$ - ${\rm Spike}\,{\rm R}\,{\rm ec}\,{\rm overy}$ outside accepted recovery limits

 ${\rm R}$ - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)



ANALYTIC	CAL RESUL	ЛS				D	ate: 04-May-17	
	JS ARMY COE					Work Or	der: 17041797	
Project: I	JS ARMY COE / N	EW SAVAI	NAH BLUF	FLOC	K & DA			
Lab ID:	17041797-005				Collec	tion Date: 4/26	2017	
Client Sample ID:	NSB-LBP-5		Matrix: PAINT CHIP					
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analys
EPA 3050B/6010C, Lead	PAINT CHIPS	0.078	0.010		wt%	1	5/3/2017 8:38:48 AM	DH
Lab ID:	17041797-006				Collec	tion Date: 4/26	2017	
Client Sample ID:	NSB-LBP-6					Matrix: PAI	T CHIP	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/6010C, Lead	PAINT CHIPS	0.013	0.0090		wt%	1	5/3/2017 8:40:33 AM	DH
Lab ID:	17041797-007				Collec	tion Date: 4/26/	2017	
Client Sample ID:	NSB-LBP-7					Matrix: PAI	VI CHIP	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/6010C, Lead	PAINT CHIPS	ND	0.0097		wt%	1	5/3/2017 8:42:19 AM	DH
Lab ID:	17041797-008				Collec	tion Date: 4/26/	2017	
Client Sample ID:	NSB-LBP-8					Matrix: PAI	T CHIP	
Analyses		Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
EPA 3050B/6010C,	PAINT CHIPS							
Lead		0.22	0.0096		wt%	1	5/3/2017 8:44:07 AM	DH

Bureau Veritas is accredited by the AIHA-LAP, LLC ELLAP program as laboratory number 100967. ELLAP meets the requirements of the National Lead Laboratory Accreditation Program (NLLAP), established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil dust wipe analysis.

 ND - $\operatorname{Not} D$ etected at the Reporting Limit (RL). Qualifiers:

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- *- Value exceeds Maximum Contaminant Level

- ${\rm S}$ ${\rm Spike}\,{\rm Recovery}$ outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range
- T Tentatively Identified Compound (TIC)

4 of 5

CHAIN OF CUSTODY - US ARMY CORPS OF ENGINEERS LEAD-BASED PAINT ANALYSIS

Project:	New Savannah Bluf	f Lock & Dam	5 Day TAT	
Sampler:	Tim Jones		Analysis: % Lead in Paint	
DATE	FIELD ID		COMPONENTS/NOTES	
4/26/2017	NSB-LBP-1	а. С.	Paint Chip	
4/26/2017	NSB-LBP-2		Paint Chip	
4/26/2017	NSB-LBP-3		Paint Chip	
4/26/2017	NSB-LBP-4		Paint Chip	
4/26/2017	 NSB-LBP-5 		Paint Chip	
4/26/2017	NSB-LBP-6		Paint Chip	_
4/26/2017	NSB-LBP-7		Paint Chip	_
4/26/2017	✓ NSB-LBP-8		Paint Chip	_
_				
				_

Rel	inquished By	Date	Time	Received By	Date	Time
Tim	Gon	4-27-17	1-27-17 1525	Kamith	4/27/17	3:32
				Dauteng	4/28/207	p Ph
				0	(a	11:30

a 11:30

5 of 5



Asbestos Survey

New Savannah Bluff Lock & Dam Augusta, Georgia

Prepared by Timothy A. Jones



The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents. **Asbestos Survey**

April 2017

New Savannah Bluff Lock & Dam Augusta, Georgia

Prepared by: Timothy A. Jones

Final report

Prepared for: U.S. Army Corps of Engineers Savannah District

Asbestos Inspection Report1-4					
List of Ta	ubles				
Table 1.	Identified Homogeneous Areas				
Table 2.	Suspect ACM Samples5-7				
Table 3.	Material characterization and assessment				

List of Figures

Figure 1.	Asbestos Sample Locations, Basement and Tunnel9
Figure 2.	Asbestos Sample Locations, First Floor10
Figure 3.	Asbestos Sample Locations, Second Floor11
Figure 4.	Asbestos Sample Locations, Roof12

Appendices

Appendix A.	Laboratory Report, Bureau Veritas North America, Inc1	3-26
Appendix B.	Sample Chain of Custody Forms2	27-29
Appendix C.	Certifications and Accreditations	30-34

Asbestos Inspection Report

Introduction

Scope of the Investigation

This report documents the asbestos inspection and survey of the New Savannah Bluff Lock & Dam in Augusta; Georgia conducted on 26 April 2017 by Savannah District US Army Corps of Engineers employee Tim Jones. The purpose of this survey was to locate asbestos containing materials that will need to be addressed prior to the disposition of the building. The survey was conducted in general accordance with the regulatory guidelines in the Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763 Subpart E Sections 763.80-763.88) and "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Purple Book) (EPA publication number 560/5-85-024).

Background

The lock and dam is a concrete structure constructed in the late 1930s timeframe. The structure consists of a dam, a lock and a concrete control/operations building.

Description of study

Investigation

All accessible areas of the structure were visually inspected for suspected asbestos containing materials. A structure walk-through was completed to determine homogeneous areas of building materials present. Bulk samples were collected from homogeneous areas of all suspect ACM's that were not assumed to be asbestos. Non-destructive sampling techniques were followed during the inspection process, therefore asbestos containing materials may exist in locations inaccessible during the inspection. The following table, Table 1, describes the homogeneous areas investigated in this inspection.

Homogeneous Area	Туре	Sample Numbers	ACM, Non-ACM, Non-Suspect
Structural concrete	Miscellaneous	Not Sampled	Non-suspect
Metal catwalks, gates and equipment	Miscellaneous	Not Sampled	Non-suspect
Metal doors and windows	Miscellaneous	Not Sampled	Non-suspect
Window glazing compound	Miscellaneous	Samples 1, 2, 3, 14, 15, 39	Non-ACM
Newer white caulking material	Miscellaneous	Samples 7, 8, 12, 13, 26	Non-ACM
Floor expansion joint filler	Miscellaneous	Samples 9, 10, 11	Non-ACM
Older cloth wiring insulation	Miscellaneous	Samples 16, 17, 18	Non-ACM
Cork duct insulation and mastic	TSI	Samples 21, 22, 23	Non-ACM
Duct insulation debris	TSI	Samples 24, 25	Non-ACM
Wall expansion joint filler/caulking	Miscellaneous	Samples 27, 28, 40	Non-ACM
Fiberboard window trim	Miscellaneous	Samples 29, 30	Non-ACM
Silver roof coating	Miscellaneous	Samples 35, 36	Non-ACM
Rubber roof tape and adhesive	Miscellaneous	Samples 41, 42	Non-ACM
Exterior window frame caulking material	Miscellaneous	Samples 4, 5, 6	ACM
Flange gaskets	Miscellaneous	Samples 19, 20	ACM
Silver paint on flashing cement	Miscellaneous	Samples 31, 32	ACM
Caulking material on roof flashing	Miscellaneous	Samples 33, 34	ACM
Roofing tar/flashing cement remnant	Miscellaneous	Samples 37	АСМ
Brake shoes	Miscellaneous	Not Sampled	Assumed ACM
Roofing materials	Miscellaneous	Not Sampled	Assumed ACM

TABLE 1IDENTIFIED HOMOGENEOUS AREAS

The bulk samples were analyzed by Bureau Veritas North America, Inc. The laboratory is accredited by the National Voluntary Laboratory Accredited Program (NVLAP Accreditation sponsored by the National Institute of Standards and Technology (NIST)). A copy of their accreditation certificate is included in Appendix C. The samples were analyzed by the accepted method of polarized light microscopy (PLM) using EPA's "Methods for the Determination of Asbestos in Bulk Materials", EPA/600/R-93/116. A copy of the laboratory's analytical report is included in Appendix A.

In compliance with the AHERA regulations, material is considered an Asbestos Containing Material (ACM) when it contains <u>greater than</u> one percent asbestos. Likewise, in this report, any material containing concentrations <u>greater than</u> one percent asbestos will be considered "positive". Occasionally, materials containing less than one percent asbestos, or not sampled, are assumed to be a "positive" asbestos containing material at the discretion of the inspector. A narrative discussion of the AHERA ACM types (i.e., Thermal Systems Insulation (TSI), Miscellaneous and Surfacing Materials) found in the building is included in this report where relevant. Bulk sample information appears on Table 2. Material characterization and quantities are listed in Table 3. Quantities listed in Table 3 are rough field estimates only and must be confirmed by contractors prior to beginning work. The approximate location where each bulk sample was obtained is shown on the building floor plans, which appear as Figures. Samples testing negative for asbestos are indicated on the floor plan Figures with their numbers enclosed in circles.

Conclusions

Thermal Systems Insulation (TSI)

TSI is insulation material applied to pipes, fittings, tanks, ducts, or on other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

No asbestos containing TSI was located in the building.

Miscellaneous Materials

Miscellaneous materials include building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and do not include surfacing or TSI. In the past, there were a great number of miscellaneous building materials that had asbestos fibers added to them during the manufacturing process to increase durability and fireproofing qualities. The following suspect miscellaneous materials were found to contain or were assumed to contain asbestos:

a. *Roofing Materials:* Remnants of old black tar-like roofing materials in the vicinity of the newer rubber roof contain asbestos. Silver paint on flashing cement contains asbestos. Caulking materials at the top of the metal flashing

at the block stairwell wall and on the adjacent roof curb cap contains asbestos. The new roofing membranes are presumed to contain asbestos. The roofing membranes were not sampled to prevent roof leaks. The membranes are white rubber material. The roofing membranes should be sampled to confirm asbestos content prior to being disturbed during renovation/demolition activities. – (See tables 1 and 2 for specific information and Figures for sample locations)

- *Exterior Window Frame Caulking:* Older looking exterior caulking material between the metal window frames and the concrete walls contains asbestos.
 (See tables 1 and 2 for specific information and Figures for sample locations)
- *c. Flange Gaskets:* Spare flange gaskets found on the first floor of the Control building contain asbestos. Flange gaskets within mechanical piping systems, generator, pumps and other equipment are presumed to contain asbestos. (See tables 1 and 2 for specific information and Figures for sample locations)
- *d. Brake Shoes:* Brake shoes associated with gate lift motors are presumed to contain asbestos. (See tables 1 and 2 for specific information and Figures for sample locations)

Surfacing Material

Surfacing Material is friable material that is sprayed on, troweled on, or otherwise applied to surfaces for decorative or other purposes.

No asbestos containing Surfacing Materials were located in the building.

TABLE 2SUSPECT ACM SAMPLES

FIELD ID	DESCRIPTION	SAMPLE LOCATION	ASBESTOS TYPE & %
NSB-E-1	Window glazing compound	Control building, exterior, between window glass and metal frame	No Asbestos Detected (PLM)
NSB-E-2	Window glazing compound	Control building, exterior, between window glass and metal frame	No Asbestos Detected (PLM)
NSB-E-3	Window glazing compound	Control building, exterior, between window glass and metal frame	No Asbestos Detected (PLM)(TEM)
NSB-E-4	Older looking white caulking material	Control building, exterior, between metal window frames and concrete walls	3% Chrysotile (PLM)
NSB-E-5	Older looking white caulking material	Control building, exterior, between metal window frames and concrete walls	3% Chrysotile (PLM)
NSB-E-6	Older looking white caulking material	Control building, exterior, between metal window frames and concrete walls	4% Chrysotile (PLM) 0.85% chrysotile (TEM)
NSB-E-7	Newer looking white caulking material	Control building, exterior, in concrete wall expansion joints	No Asbestos Detected (PLM)
NSB-E-8	Newer looking white caulking material	Control building, exterior, in concrete wall expansion joints	No Asbestos Detected (PLM)
NSB-E-9	Expansion joint filler	Exterior, concrete walkway beside lock	No Asbestos Detected (PLM)
NSB-E-10	Expansion joint filler	Exterior, concrete walkway beside lock	No Asbestos Detected (PLM)
NSB-E-11	Expansion joint filler	Exterior, concrete walkway beside lock	No Asbestos Detected (PLM)
NSB-1-12	Newer looking white caulking material	Control building, first floor, in concrete wall expansion joints	No Asbestos Detected (PLM)
NSB-1-13	Newer looking white caulking material	Control building, first floor, in concrete wall expansion joints	No Asbestos Detected (PLM)(TEM)
NSB-1-14	Window glazing compound	Control building, first floor, between glass and door	No Asbestos Detected (PLM)
NSB-1-15	Window glazing compound	Control building, first floor, between glass and door	No Asbestos Detected (PLM)(TEM)
NSB-B-16	Wiring insulation	Control building, basement tunnel, on older cloth wrapped electrical wiring	No Asbestos Detected (PLM)

NSB-R-35	Silver roof coating	Control building, roof, on block wall below copper roof	No Asbestos Detected (PLM)
NSB-R-34	Caulking material	Control building, roof, at top of metal flashing at stairwell wall	2% Chrysotile (PLM) 0.9% chrysotile (TEM)
NSB-R-33	Caulking material	Control building, roof, at top of metal flashing at stairwell wall	2% Chrysotile (PLM)
NSB-R-32	Flashing cement	Control building, roof, between roof and stairwell wall	Silver paint 3% Chrysotile, flashing cement NAD (PLM)
NSB-R-31	Flashing cement	between roof and stairwell wall	Chrysotile, flashing cement NAD (PLM)
		Control building, roof,	Silver paint 3%
NSB-2-30	Fiberboard	trim around window	(PLM)
NSB-2-30	Fiberboard	Control building, second floor,	No Asbestos Detected
NSB-2-29	Fiberboard	trim around window	(PLM)
	· · ·	Control building, second floor,	No Asbestos Detected
NSB-2-28	Expansion joint filler	Control building, second floor, in concrete wall expansion joint	No Asbestos Detected (PLM)
	. ,	in concrete wall expansion joint	(PLM)
NSB-2-27	Expansion joint filler	Control building, second floor,	No Asbestos Detected
	caulking material	in concrete wall expansion joint	(PLM)
NSB-2-26	Newer looking white	Control building, second floor,	No Asbestos Detected
		material on ductwork	(PLM)
NSB-2-25	Insulation debris	remnants of white friable	No Asbestos Detected
		material on ductwork Control building, second floor,	
NSB-2-24	Insulation debris	remnants of white friable	(PLM)
	Inculation debuie	Control building, second floor,	No Asbestos Detected
	with mastics	vertical ductwork	(PLM)
NSB-2-23	Cork duct insulation	Control building, second floor,	No Asbestos Detected
NSB-2-22	with mastics	vertical ductwork	(PLM)
	Cork duct insulation	Control building, second floor,	No Asbestos Detected
NSB-2-21	with mastics	Control building, second floor, vertical ductwork	(PLM)
100-1-20	Cork duct insulation	spare gasket on shelf	No Asbestos Detected
NSB-1-20	Flange gasket	Control building, first floor,	45% Chrysotile (PLM)
NSB-1-19	Flange gasket	Control building, first floor, spare gasket on shelf	45% Chrysotile (PLM)
NOD-D-10	Wiring insulation	tunnel, on older cloth wrapped electrical wiring	(PLM)
NSB-B-18	Wiring inculation	Control building, basement	No Asbestos Detected
		wiring	(PLM)
NSB-1-17	Wiring insulation	Control building, first floor, on older cloth wrapped electrical	No Asbestos Detected

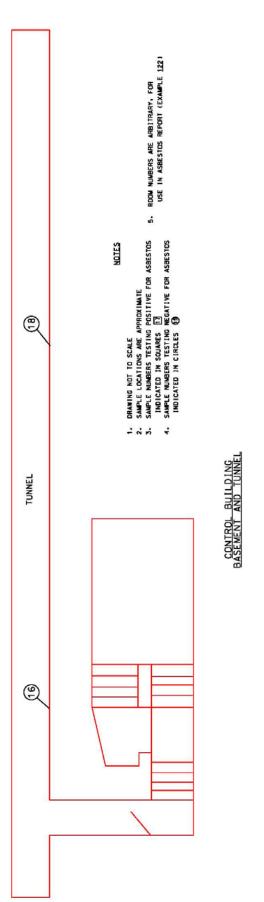
NSB-R-36	Silver roof coating	Control building, roof, on block wall below copper roof	No Asbestos Detected (PLM)
NSB-R-37	Roofing tar/flashing cement	Control building, roof, small remnant at newer rubber roof	5% Chrysotile (PLM)
NSB-R-38	Roofing tar/flashing cement	Control building, roof, small remnant at newer rubber roof	No Asbestos Detected (PLM)
NSB-R-39	Window glazing material	Control building, roof access door	No Asbestos Detected (PLM)
NSB-1-40	Expansion joint filler	Control building, First floor, joint in concrete wall	No Asbestos Detected (PLM)(TEM)
NSB-R-41	Rubber tape & adhesive	Dam, on center of metal roof above hydraulic gate actuator	No Asbestos Detected (PLM)
NSB-R-42	Rubber tape & adhesive	Dam, on center of metal roof above hydraulic gate actuator	No Asbestos Detected (PLM)

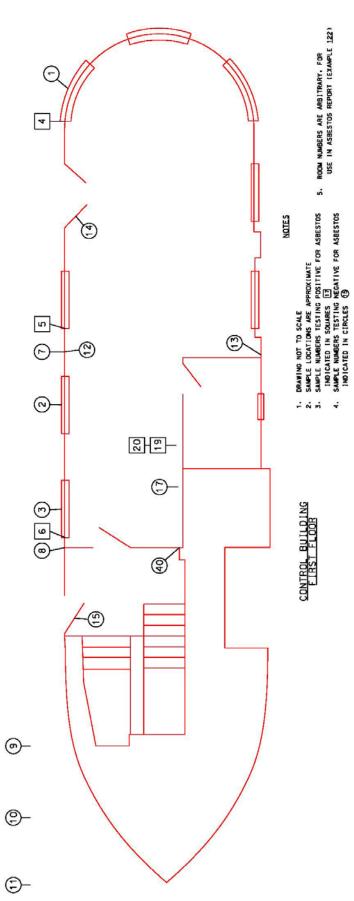
Samples testing positive for asbestos indicated in **BOLD** type

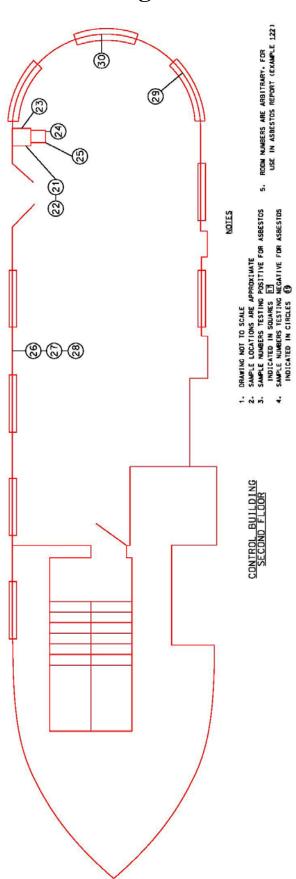
NAD = No Asbestos Detected

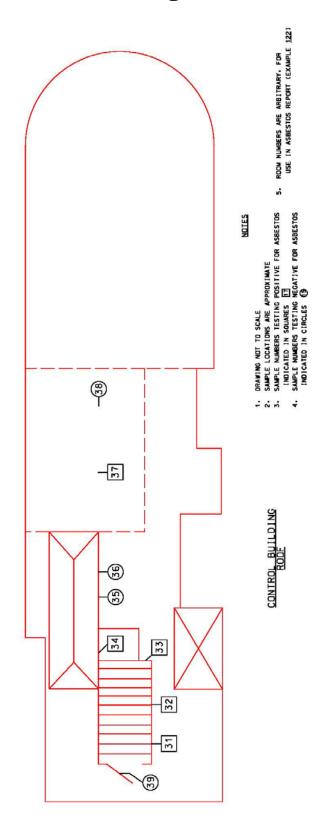
TABLE 3
MATERIAL CHARACTERIZATION AND ASSESSMENT

Homogene	ous Area	Functional Space	Chai	racteristics			Assessment	
Description	Туре		Asbestos Yes/No/Presumed	Quantity	Friability	Condition	Disturbance Potential	Accessibility
Exterior window frame caulking material	Miscellaneous	Exterior	Yes	700 L.F.	Non-Friable	Damaged	Moderate	Accessible
Flange gaskets	Miscellaneous	Interior	Yes (spares) Presumed (in place)	375 Ea.	Non-friable	Good	Low	Accessible (spares) Not Accessible (in place)
Silver paint on flashing cement	Miscellaneous	Roof	Yes	10 S.F.	Non-Friable	Damaged	Low	Accessible
Caulking Material, roof flashing	Miscellaneous	Roof	Yes	10 L.F.	Non-Friable	Good	Low	Accessible
Roofing remnants	Miscellaneous	Roof	yes	5 C.F.	Non-Friable	Damaged	Low	Limited Accessibility
Roofing membranes	Miscellaneous	Roof	Presumed	650 S.F.	Non-Friable	Good	Low	Accessible
Brake shoes	Miscellaneous	Exterior	Presumed	12 Ea.	Non-Friable	Good	Low	Limited Accessibility









Appendix A

Analytical Report



May 04, 2017

Timothy A. Jones U.S. ARMY CORPS OF ENGINEERS 200 N. Cobb Pky. Suite 404 CESAS-EN-Gse/Timothy Jones Marietta, GA 30062

Bureau Veritas Work Order A1704259

Reference NEW SAVANNAH BLUFF LOCK & DAM

Dear Timothy A. Jones:

Bureau Veritas North America, Inc. received 42 samples on April 27, 2017 for the analyses presented in the following report.

The results apply only to the samples analyzed in this project. Please note that any unused portion of the samples will be discarded after a sixty-day holding period, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning the report, please contact the analyst whose name appears on the report or myself at (770) 499-7701.

Sincerely,

Jon Perrenoud Senior Microscopist Electronic signature authorized through password protection

Bureau Veritas North America, Inc.

Health, Safety, and Environmental Services 3380 Chastain Meadows Parkway, Suite 300 Kennesaw, GA 30144 Main: (770) 499-7701 Fax: (770) 499-7511 www.us.bureauveritas.com

1 of 15



CASE NARRATIVE

Date: 04-May-17

 CLIENT:
 U.S. ARMY CORPS OF ENGINEERS

 Project:
 NEW SAVANNAH BLUFF LOCK & DAM

 Work Order No
 A1704259

ANALYTICAL METHOD FOR ASBESTOS IN BULK SAMPLES USING POLARIZED LIGHT MICROSCOPY (PLM)

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected unless otherwise noted.

Use of EPA/600/R-93/116 satisfies applicable requirements of the USEPA's "Interim Method for the Determination of Asbestos in Bulk Insulation Sample", EPA-600/M4-82-020, December 1982, published as Appendix E to Subpart E of 40 CFR763. Bulk samples analyzed by New York State methods follow stratified point counting methods (198.1) or Method 198.6 for PLM non-friable organically bound materials (NYSDOH Lab Code -11645). Percentages are visual estimations of asbestos >10:1 aspect ratio. The reliable limit of quantitation of the method is 1%, although asbestos may be qualitatively detected at concentrations less than 1%. Samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed. NESHAP requires point counting of a bulk sample when the result is <10% by a method other than point counting. EPA, however states that if 3 mounts of the sample are analyzed and the asbestos percentage is <10% by visual estimation, the client may elect to assume the amount to be greater than 1% or require verification by point counting. If the result by point counting is different than the result obtained by visual estimation, the point count result will be used. Sample friability or non-friability noted on the report is a requirement for the State of California and refers only to the condition of the sample under macroscopic examination. It does not imply friability or non-friability for the sample as collected or observed in the field as determined by the person collecting the sample. The Kennesaw, Georgia lab is accredited by NVLAP -Lab Code 101125-0.

(a)Polarized- light microscopy is not consistently reliable in detecting asbestos in floor coverings, similar non-friable organically bound materials, soil and verniculite. Quantitative electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing. When analysis of such materials by PLM yields results negative for the presence of asbestos, Bureau Veritas recommends utilizing quantitative transmission electron microscopy (TEM). For more information, contact the laboratory.

References



 CLIENT:
 U.S. ARMY CORPS OF ENGINEERS

 Project:
 NEW SAVANNAH BLUFF LOCK & DAM

 Work Order No
 A1704259

McCrone, Walter C. 1980. The Asbestos Particle Atlas. Ann Arbor, MI: Ann Arbor Science Publishers, Inc.

United States Environmental Protection Agency. Environmental Monitoring Systems Laboratory. 1982. Interim Method for the Determination of Asbestos in Bulk Insulation Samples. EPA-600/M4-82-020. Washington: GPO, December.

United States Environmental Protection Agency. Method for the Determination of Asbestos in Bulk Building Materials. EPA-600/R-93/116, July 1993 (PLM)

Fed. Reg. Vol. 55, No.224, 11/20/90, p.48415 (NESHAP) EPA Memorandum 5/8/1991 –NESHAP Clarifications

NYSDOH Methods 198.1/198.6

QUANTITATIVE ANALYSIS OF NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES FOR ASBESTOS USING TRANSMISSION ELECTRON MICROSCOPY (TEM) (NY ELAP 198.4)

Approximately 100-500 mg of sample is weighed in a tared crucible. The sample is placed in a muffle furnace at a temperature of 480° C for at least 5 hours, or until the weight has stabilized. The sample is allowed to cool to room temperature and immediately weighed to calculate percent of organic loss.

The sample is placed in a tared crucible and ground to disaggregate the residue. Approximately 1 ml of non-dilute HCL acid is slowly added to remove calcite and dolomite from the remaining sample residue. After 15 minutes, the sample is immediately diluted with ultra-pure water. The sample is then dispersed in 50 ml of ultra-pure water and filtered onto a pre-weighed 47 mm, 0.4um pore size polycarbonate filter. The filter is dried on a slide warmer and weighed again. If the residue mass is <1% of the subsample's original mass, the analysis is terminated and the result is reported as non-ACM.

A one cm2 portion of the filter is cut and placed in a clean silica crucible. Approximately 5 ml of ethanol are added and ultra-sonicated for 1 minute. Approximately 3 µl of the suspension is drop-mounted onto a carbon-coated TEM grid and allowed to dry.

Grids are examined at 3000X for suitability of the prep where >50% intact filter coverage and <25% particle loading is determined. Large bundles of asbestos may be noted during this phase of the analysis. At 10,000X to 20,000X, positive confirmation and further visual estimation of asbestos is determined. If there are no other particles on the filter, then the asbestos observed is 100% visual



 CLIENT:
 U.S. ARMY CORPS OF ENGINEERS

 Project:
 NEW SAVANNAH BLUFF LOCK & DAM

 Work Order No
 A1704259

estimation. Otherwise, the estimate includes all sizes relative to other particles or fibers. Morphology, selected area electron diffraction, and energy-dispersive x-ray spectroscopy are used to confirm asbestos fibers. From TEM examination as outlined above, the final visual area estimation is made of asbestos on the TEM grids and the percent asbestos in the residue is then extrapolated using gravimetric records to identify the percent asbestos in the total sample (NYS DOH Lab Code 11645).

SPECIAL NOTES

1)Material types analyzed by 198.1 method: a) Friable materials other than SM-V (Surfacing Material) with <10% vermiculite; b) Surfacing Material (SM) without vermiculite; and c) ceiling tile without cellulose.

2)Material types analyzed by 198.6/198.4 method: NOB material (other than SM-V) with <10% vermiculite; b) any material other than SM-V with >10% vermiculite; and c) Ceiling Tiles with cellulose.

3) Material types analyzed by 198.8 method: Surfacing Material containing vermiculite (SM-V).

REFERENCES

Chatfield Method for Quantitative Analysis of Bulk Samples for Asbestos Using Transmission Electron Microscopy (unpublished).

New York ELAP Method 198.4, May 2016.

NOTE: Some of the samples may have contained inseparable layers which were combined during preparation



ALYTICAL RESULTS Da							Date:	04-May-17	
ENT:		U.S. ARM	Y CORPS OF ENGINE	ERS		Sample	Type:	Bulk	
rk Ord	er No	a.: A1704259			Date		eived:	4/27/2017	
ent Refe	renc	e: NEW SAU	ANNAH BLUFF LOCI	K & DAM		Report	Date:	04-May-17	
hod Ref	ereno	e: EPA-600/1	M4-82-020/EPA/600/R-	93/116/NYELAP 19	8.1				
ID		Client Sample	ID		Analyst	Date Sampled	1	Date Analyzed	
<u>A</u> NSE	8-E-1				KN	04/26/2017		05/04/2017	
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate	
(1)	2	Homogeneous		None Detected		Non-Detected		Binder/Filler	
(2)	98	Homogeneous Glaze/Caulk	Off-White Window	None Detected		Cellulose fiber	2%	Binder/Filler	
<u>a</u> nse	8-E-2	l			KN	04/26/2017		05/04/2017	
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate	
(1)	2	Homogeneous	Green Paint	None Detected		Non-Detected		Binder/Filler	
(2)	98	Homogeneous Glaze/Caulk	Off-White Window	None Detected		Non-Detected		Binder/Filler	
<u>A</u> NSE	8-E-3	l			KN	04/26/2017		05/04/2017	
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate	
(1)	2	Homogeneous	Green Paint	None Detected		Non-Detected		Binder/Filler	
(2)	98	Homogeneous Glaze/Caulk	Off-White Window	None Detected		Non-Detected		Binder/Filler	
<u>A</u> NSE	3-E-4	t			KN	04/26/2017		05/04/2017	
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate	
(1)	100	Non-homogene Material	eous Gray Caulking	Chrysotile	3%	Non-Detected		Binder/Filler	
				Tot	al 3%				
<u>A</u> NSE	8-E-5	i			KN	04/26/2017		05/04/2017	
Layer	PO	B Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate	
(1)	100	Non-homogene Material	eous Gray Caulking	Chrysotile	3%	Non-Detected		Binder/Filler	
				Tot	al 3%				

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

_____5/4/2017



NAL1	IIV	CAL RESULTS				Date:	04-May-17
ENT:		U.S. ARMY CORPS OF ENGINEER	RS		Sample	T yp e:	Bulk
rk Order	No.:	A1704259			Date Rec	eived:	4/27/2017
ent Refere	nce:	NEW SAVANNAH BLUFF LOCK	& DAM		Report	Date:	04-May-17
hod Refere	ence:	EPA-600/M4-82-020/EPA/600/R-93	/116/NYELAP 19	8.1			
ID	С	lient Sample ID		Analyst	Date Sample	i	Date Analyzed
<u>A</u> NSB-E	E-6			КИ	04/26/2017		05/04/2017
Layer P	OB	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous Gray Caulking	Chrysotile	4%	Non-Detected		Binder/Filler
	IVI 2	iterial	Tot	al 4%			
A NSB-E	-7			KN	04/26/2017		05/04/2017
Layer P	ов	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous White/Brown uulking Material	None Detected		Non-Detected		Binder/Filler
A NSB-E	-8			KN	04/26/2017		05/04/2017
Layer F	OB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous White/Brown uulking Material	None Detected		Non-Detected		Binder/Filler
<u>A</u> NSB-E	-9			KN	04/26/2017		05/04/2017
Layer P	OB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10	0 Hc	mogeneous Brown Expansion Joint	None Detected		Cellulose fiber	2%	Binder/Filler
A NSB-E	-10			KN	04/26/2017		05/04/2017
Layer P	POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10	0 Hc	mogeneous Brown Expansion Joint	None Detected		Cellulose fiber	2%	Binder/Filler
<u>A</u> NSB-E	-11			KN	04/26/2017		05/04/2017
Layer P	OB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10	0 Ho	mogeneous Brown Expansion Joint	None Detected		Cellulose fiber	2%	Binder/Filler
A NSB-1	-12			KN	04/26/2017		05/04/2017
Layer F	ов	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1) 10		n-homogeneous Off-White/Black ulking Material	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

5/4/2017



	CAL RESULTS			Date:	04-May-17	
IENT:	U.S. ARMY CORPS OF ENGINEE	ERS		Sample	Bulk	
rk Order No.:	A1704259			Date Rec	4/27/2017	
ent Reference:	NEW SAVANNAH BLUFF LOCK	& DAM		Report	Date:	04-May-17
thod Reference:	EPA-600/M4-82-020/EPA/600/R-9	3/116/NYELAP 19	98.1			
ID C	lient Sample ID		Analyst	Date Sample	d	Date Analyzed
A NSB-1-13			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	on-homogeneous Off-White/Black aulking Material	None Detected		Non-Detected		Binder/Filler
A NSB-1-14			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	omogeneous Off-White Window aze/Caulk	None Detected		Non-Detected		Binder/Filler
<u>A</u> NSB-B-15			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	omogeneous Off-White Window aze/Caulk	None Detected		Non-Detected		Binder/Filler
A NSB-B-16			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
	omogeneous Dark Brown Wire sulation	None Detected		Synthetic fiber	50%	Binder/Filler
<u>'A</u> NSB-1-17			KN	04/26/2017		05/04/2017
Layer POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
W	on-homogeneous Off-White/Brown ire Insulation	None Detected		Synthetic fiber	50%	Binder/Filler
	yer Comment: Paint and insulation inse	sparable.				
A NSB-B-18			KN	04/26/2017		05/04/2017

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

5/4/2017



NAI	ALYTICAL RESULTS Date:							
ENT:	2	U.	S. ARMY CORPS OF ENGINEER	RS		Sample	Type:	Bulk
rk Or	der N	o.: A	1704259			Date Rec	eived:	4/27/2017
ent Re	feren	ce: N	EW SAVANNAH BLUFF LOCK (& DAM		Report	Date:	04-May-17
hod Re	eferen	ce: EI	PA-600/M4-82-020/EPA/600/R-93	/116/NYELAP 19	8.1	10000 - 1000 Ma		
ID		Client	Sample ID		Analyst	Date Sample	1	Date Analyzed
A NS	SB-1-:	9			KN	04/26/2017		05/04/2017
Lay	er PO	В	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Homo	geneous Gray Gasket	Chrysotile Tot	45% al 45%	Non-Detected		Binder/Filler
<u>DA</u> NS	SB-1-2	20			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Homog	geneous Gray Gasket	Chrysotile Tot	45% al 45%	Non-Detected		Binder/Filler
A NS	SB-2-2	21			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)	40 60	- 352 (Contraction of Sec.	geneous Dark Brown Cork omogeneous Off-White Mastic	None Detected None Detected		Cellulose fiber Cellulose fiber	15% 3%	Binder/Filler Binder/Filler
A NS	SB-2-2	22			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)	80 20	2010000000000	geneous Dark Brown Cork omogeneous Off-White Mastic	None Detected None Detected		Non-Detected Non-Detected		Binder/Filler Binder/Filler
RA NS	SB-2-2	23			KN	04/26/2017		05/04/2017
Laye	er PO	в	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)	80 20		geneous Dark Brown Cork omogeneous Off-White Mastic	None Detected None Detected		Non-Detected Non-Detected		Binder/Filler Binder/Filler
IA NS	SB-2-2	24			KN	04/26/2017		05/04/2017
Laye	er PO	В	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Non-ho	omogeneous Multi-colored Debris	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

____5/4/2017



NAI	NALYTICAL RESULTS Date:							04-May-17
IENT: U.S. ARMY CORPS OF ENGINEERS						Sample	Type:	Bulk
rk Or	der	No.	: A1704259			Date Rec	eived:	4/27/2017
ent Re	fer	ence	: NEW SAVANNAH BLUFF LOCK .	& DAM		Report	: Date:	04-May-17
hod R	efer	ence	: EPA-600/M4-82-020/EPA/600/R-93	/116/NYELAP 19	98.1			
ID			Client Sample ID		Analyst	Date Sample	d	Date Analyzed
A No	SB-	2-25			KN	04/26/2017		05/04/2017
Lay	er	POB	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	10	л ОС	Ion-homogeneous Multi-colored Debris	None Detected		Non-Detected		Binder/Filler
<u>A</u> Na	SB-	2-26			KN	04/26/2017		05/04/2017
Lay	er	РОВ	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	1(Iomogeneous Off-White Caulking 1aterial	None Detected		Non-Detected		Binder/Filler
A NS	SB-	2-27			KN	04/26/2017		05/04/2017
Lay	er	ров	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	10		Ion-homogeneous Black/Off-White xpansion Joint	None Detected		Non-Detected		Binder/Filler
<u>A</u> NS	SB-	2-28			KN	04/26/2017		05/04/2017
Lay	er	РОВ	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	10		Ion-homogeneous Black/Off-White xpansion Joint	None Detected		Non-Detected		Binder/Filler
<u>A</u> No	SB-	2-29			KN	04/26/2017		05/04/2017
Lay	er	ров	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	ł	5 F	Iomogeneous Light Green Paint	None Detected		Non-Detected		Binder/Filler
(2)	9	15 H	Iomogeneous Brown Fiber Board	None Detected		Wood Fiber	85%	Binder/Filler
<u>A</u> NS	SB-	2-30			KN	04/26/2017		05/04/2017
Lay	er	ров	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)			Iomogeneous Light Green Paint Iomogeneous Brown Fiber Board	None Detected None Detected		Non-Detected Wood Fiber	85%	Binder/Filler Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date: _____5/4/2017



AL	TIC	CAL RESULTS			Date:	04-May-17	
ENT:		U.S. ARMY CORPS OF ENGINEE	RS		Sample	Type:	Bulk
rk Orde	r No.:	A1704259			Date Rec	eived:	4/27/2017
nt Refe	rence:	NEW SAVANNAH BLUFF LOCK	& DAM		Report	Date:	04-May-17
hod Refe	erence:	EPA-600/M4-82-020/EPA/600/R-93	3/116/NYELAP 19	8.1	100000 - 1000 mil		
ID	С	lient Sample ID		Analyst	Date Sample	đ	Date Analyzed
<u>a</u> nse	I-R-31			KN	04/26/2017		05/04/2017
Layer	РОВ	Sample Marphology	Ashestos	%	Other Fibers	%	Particulate
A . 2	40 Ho	omogeneous Silver Paint	Chrysotile	3%	Non-Detected		Binder/Filler
(2)	60 Ho	mogeneous Black Flashing Cement	None Detected		Cellulose fiber	4%	Binder/Filler
			Tot	al 1%			
<u>a</u> NSB	-R-32			ΚN	04/26/2017		05/04/2017
Layer	РОВ	Sample Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	40 Ho	omogeneous Silver Paint	Chrysotile	3%	Cellulose fiber	3%	Binder/Filler
(2)	60 Ho	mogeneous Black Flashing Cement	None Detected		Cellulose fiber	3%	Binder/Filler
			Tot	al 1%			
A NSB	-R-33			KN	04/26/2017		05/04/2017
Layer	РОВ	Sample Marphology	Ashestos	%	Other Fibers	%	Particulate
(1)		on-homogeneous Gray Caulking aterial	Chrysotile	2%	Cellulose fiber	2%	Binder/Filler
			Tot	al 2%			
a NSB	-R-34			KN	04/26/2017		05/04/2017
Layer	POB	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1)		on-homogeneous Gray Caulking aterial	Chrysotile	2%	Cellulose fiber	2%	Binder/Filler
			Tot	al 2%			
<u>a</u> NSB	-R-35			KN	04/26/2017		05/04/2017
Layer	РОВ	Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100 Ho	progeneous Silver Roof Coating	None Detected		Non-Detected		Binder/Filler
<u>a</u> NSB	-R-36			KN	04/26/2017		05/04/2017
Layer	POB	Sample Marphology	Ashestos	%	Other Fibers	%	Particulate
(1)	100 Ho	progeneous Silver Roof Coating	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

An alyst(s) Name/Date:

____5/4/2017



AL	ALYTICAL RESULTS Dat							04-May-17
ENT:		U.S. ARM	Y CORPS OF ENGINEER	S		Sample	Туре:	Bulk
k Ord	er No.	: A1704259				Date Rec	eived:	4/27/2017
nt Refe	erence	: NEW SAU	ANNAH BLUFF LOCK &	2 DAM		Report	Date:	04-May-17
10d Ref	erence	: EPA-600/]	M4-82-020/EPA/600/R-93/	'116/NYELAP 19	8.1	-		
ID		Client Sample	ID		Analyst	Date Sample	d	Date Analyzed
a nse	3-R-37				KN	04/26/2017		05/04/2017
Layer	РОВ	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100 H	lomogeneous	Black Roofing Tar	Chrysotile Tot	5% al 5%	Cellulose fiber	2%	Binder/Filler
<u>a</u> nse	3-R-38				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1) (2)		łomogeneous łomogeneous	Black Roofing Tar Brown Paint	None Detected None Detected		Cellulose fiber Non-Detected	2%	Binder/Filler Binder/Filler
<u>a</u> NSE	3-R-39				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Ashestos	%	Other Fibers	%	Particulate
(1)		New New York Contraction of the	Light Green Paint	None Detected		Non-Detected		Binder/Filler
(2)		lon-homogene 31aze/Caulk	eous Off-White Window	None Detected		Non-Detected		Binder/Filler
<u>a</u> nse	3-1-40				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)		lomogeneous 31aze/Caulk	Off-White Window	None Detected		Non-Detected		Binder/Filler
(2)	70 H	lomogeneous	Black Insulation Material	None Detected		Non-Detected		Binder/Filler
<u>a</u> nse	3-R-41				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)	50 H	lomogeneous	Black Rubbery Material	None Detected		Non-Detected		Binder/Filler
(2)	2 H	lomogeneous	Black Adhesive	None Detected		Non-Detected		Binder/Filler
(3)	48 H	lomogeneous	Rubbery Material	None Detected		Non-Detected		Binder/Filler
a nse	3-R-42				KN	04/26/2017		05/04/2017
Layer	POB	Sa	mple Marphology	Asbestos	%	Other Fibers	%	Particulate
(1)			Black Rubbery Material	None Detected		Non-Detected		Binder/Filler
(2)	2 F	lomogeneous	Black Adhesive	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

An alyst(s) Name/Date:

_____5/4/2017



	Labor atory Limits					
Kathleen Nahodyl (KN)						
Range	R Limit	Quartile Limit				
0.1-1	100	+/- 1.482				
10-100	100	+# 26.676				
1-10	100	+/- 5.928				
Trace	100	+/- 1.482				
Laboratory						
Range	R Limit	Quartile Limit				
0.1-1	100	+/- 1.482				
10-100	100	+/- 22.23				
1-10	100	+/- 7.41				
Trace	100	+/- 1.482				

The reliable limit of quantitation of the method is 1% although asbestos may be qualitatively detected at concentrations less than 1%. Samples for asbestos is detected at <1% are reported as trace, "<1%", "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

_____5/4/2017



Clie	nt: U.S. ARMY	CORPS OF EN	GINEERS					
lient Reference N	O.: NEW SAVA	ANNAH BLUFF	LOCK & DA	M				
Work Order N	lo.: A1704259					Date: 04-1	May-17	
	ical Method: NYI ample Type: Bulk		.98.4 by TEM	E .	Date Ro Repo Grid Box Identif	rt Date: 5/4/	7/2017 2017 3: 01-17H-	14:47 PM
1 0 1	, ,		10.00					
Lab Sample No.	Client Sample Identification	Date Sampled	Analysis Date	Analyst	Sample Description (Morphology)	Asbesto Identificatio		Total Asbesto (%)**
1704259-003A	NSB-E-3	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	Blue Paint/Mastic Mixture	None Detecto	ed	< 0.1
1704259-003B	NSB-E-3	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	White Window Glazing Compound	None Detecto	ed	< 0.1
1704259-006A	NSB-E-6	04/26/17 @12:00 an	05/03/17 n @10:24 am	JP	Gray Caulking/ Orange Mastic	Chrysotile	10	0.85
1704259-013A	NSB-1-13	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	White Caulking/Blue	None Detecto	ed	< 0.1
1704259-015A	NSB-B-15	04/26/17 @12:00 an	05/03/17 n @10:24 am	JP	White Window Glazing/Blue Paint	None Detecte	ed	< 0.1
1704259-034A	NSB-R-34	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	Gray Caulking/Orange	Chrysotile	10	0.90
1704259-040A	NSB-1-40	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	Black Mastic	None Detecto	ed	< 0.1
1704259-040B	NSB-1-40	04/26/17 @12:00 an	05/03/17 1 @10:24 am	JP	White Window Glazing/Green and	None Detecto	ed	< 0.1
			I Microscope	Docume	ntation			
Instru	ument	A Magnification*	A. 1.	Calibratio	on Date			
TEM 1	1/D675	14500x	100 KeV	5/2/20	100 T 10			

<: Result is less than the indicated limit of detection. --: Present but below the detection limit

*: The visual area estimation of asbestos content in the final residue. **: The calculated total percent asbestos in the sample as received.

J Renard Analyst(s) Name/Date:

5/4/2017

Appendix B

Sample Chain of Custody Forms

A1704259

ASBESTOS CHAIN OF CUSTODY US ARMY CORPS of ENGINEERS, ENVIRONMENTAL & MATERIALS UNIT

Project: New Savannah Bluff Lock & Dam	5 day TAT
Sampler: Tim Jones	Analysis: See below

DATE	SAMPLE ID	DESCRIPTION	ANALYSIS REQUIRED
4/26/2017	NSB-E-1	Window glazing compound	PLM
4/26/2017	NSB-E-2	Window glazing compound	PLM
4/26/2017	NSB-E-3	Window glazing compound	PLM, TEM
4/26/2017	NSB-E-4	Caulking material	PLM
4/26/2017	NSB-E-5	Caulking material	PLM
4/26/2017	NSB-E-6	Caulking material	PLM, TEM
4/26/2017	NSB-E-7	Caulking material	PLM
4/26/2017	NSB-E-8	Caulking material	PLM
4/26/2017	NSB-E-9	Expansion joint filler	PLM
4/26/2017	NSB-E-10	Expansion joint filler	PLM
4/26/2017	NSB-E-11	Expansion joint filler	PLM
4/26/2017	NSB-1-12	Caulking material	PLM
4/26/2017	NSB-1-13	Caulking material	PLM, TEM
4/26/2017	NSB-1-14	Window glazing compound	PLM
4/26/2017	NSB-B-15	Window glazing compound	PLM, TEM
4/26/2017	NSB-B-16	Wiring insulation	PLM
4/26/2017	NSB-1-17	Wiring insulation	PLM
4/26/2017	NSB-B-18	Wiring insulation	PLM
4/26/2017	NSB-1-19	Flange gasket	PLM
4/26/2017	NSB-1-20	Flange gasket	PLM
4/26/2017	NSB-2-21	Cork duct insulation with mastics	PLM
4/26/2017	NSB-2-22	Cork duct insulation with mastics	PLM
4/26/2017	NSB-2-23	Cork duct insulation with mastics	PLM
4/26/2017	NSB-2-24	Insulation debris	PLM

Relinguished By	Date	Time	Received By	Date	Time
Tim Com	4-27-17	1525	n. Smith	Ybile	7 33
0				77	p

ASBESTOS CHAIN OF CUSTODY								
US ARMY CORPS of ENGINEERS, ENVIRONMENTAL & MATERIALS UNIT								

Project: New Savannah Bluff Lock & Dam			Analysis One halow
Sampler:	Tim Jones	Analysis: See below	
			1
DATE	SAMPLE ID	DESCRIPTION	ANALYSIS REQUIRED
4/26/2017	NSB-2-25	Insulation debris	PLM
4/26/2017	NSB-2-26	Caulking material	PLM
4/26/2017	NSB-2-27	Expansion joint filler	PLM
4/26/2017	NSB-2-28	Expansion joint filler	PLM
4/26/2017	NSB-2-29	Fiberboard	PLM
4/26/2017	NSB-2-30	Fiberboard	PLM
4/26/2017	NSB-R-31	Flashing cement	PLM
4/26/2017	NSB-R-32	Flashing cement	PLM
4/26/2017	NSB-R-33	Caulking material	PLM
4/26/2017	NSB-R-34	Caulking material	PLM, TEM
4/26/2017	NSB-R-35	Silver roof coating	PLM
4/26/2017	NSB-R-36	Silver roof coating	PLM
4/26/2017	NSB-R-37	Roofing tar/flashing cement	PLM
4/26/2017	NSB-R-38	Roofing tar/flashing cement	PLM
4/26/2017	NSB-R-39	Window glazing material	PLM
4/26/2017	NSB-1-40	Window glazing material	PLM, TEM
4/26/2017	NSB-R-41	Rubber tape & adhesive	PLM
4/26/2017	NSB-R-42	Rubber tape & adhesive	PLM

Relinquished By	Date	Time	Received By	Date	Time
True Con	9-27-17	1525	1. Smith	4/21/20	n 3
. 0			Contraction of the second states of the second stat	. 1	

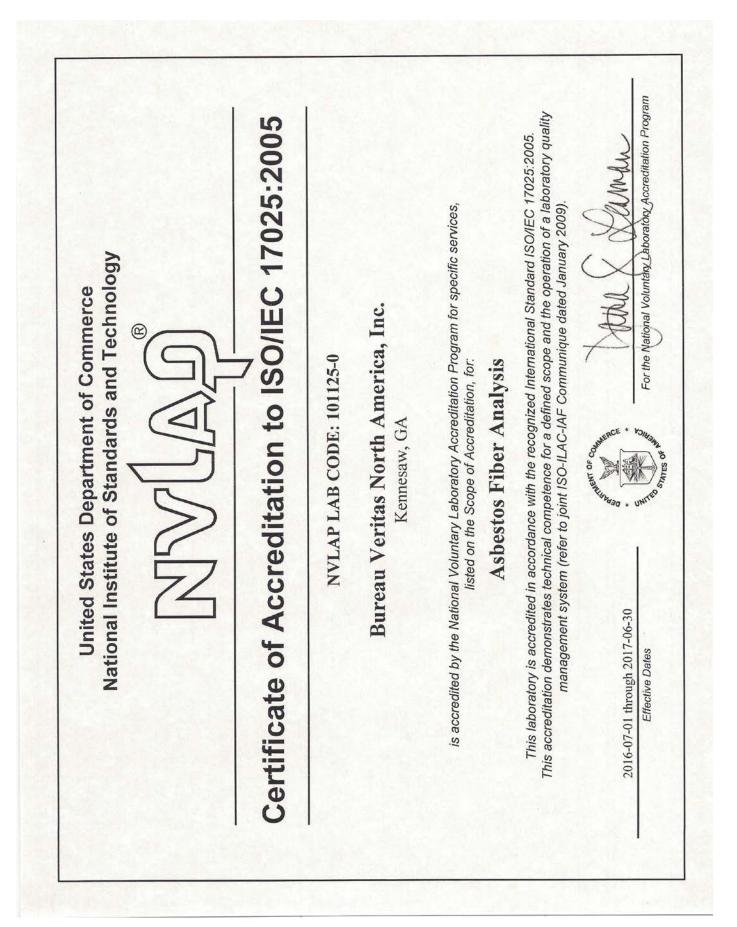
15 of 15

Appendix C

Certifications and Accreditations

	The Environr	mental Institute
	Tim J	Iones
	· · ·	
	Has completed coursewo	ork and satisfactorily passed
		eets all criteria required for
		II) Approved Accreditation
	and NESHAP Re	egulations Training
Asbes	stos in Buildinas: Ins	spection and Assessment
	Ū	•
		2360
Febri	<u>10-12, 1997</u> Course Date	Certificate Number
Fah	ruary 12, 1997	
<u> </u>	Examination Date	(SR)
Feb	ruary 11, 1998	
Int.		
//J	Im H. Spain - Course privector	
	> M M ME	
Rache	AG. McCain - Exam Administrator	₹.

The Environmental Institute
Timothy Jones
Social Security Number - XXX-XX-8826 US Army Corps of Engineers - 200 North Cobb Parkway, Suite 404 - Marietta, Georgia 30062
Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation
Asbestos in Buildings: Inspector Refresher
September 19, 2016 Course Date 15868 Certificate Number
September 19, 2016 Examination Date
Thomas G. Laubenthal - Principal Instructor
Rachel G McCain - Exam Administrator David W. Hogue - Training Manager
(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577) (Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805) TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com



NVLAの[®] National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Bureau Veritas North America, Inc. 3380 Chastain Meadows Pkwy., Suite 300 Kennesaw, GA 30144 Mr. Alan M. Segrave Phone: 770-499-7500 Fax: 770-499-7511 Email: alan.segrave@us.bureauveritas.com http://www.us.bureauveritas.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101125-0

Bulk Asbestos Analysis

Code	Description
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials
Airborne As	bestos Analysis
Code	Description
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and

U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

Effective 2016-07-01 through 2017-06-30

Page 1 of 1

Savannah Lock and Dam

1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.2s October 10, 2018

EDR Summary Radius Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-NULL-PVC

TABLE OF CONTENTS

SECTION

PAGE

Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	12
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business. Please contact EDR at 1-800-352-0050 with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental St Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1853 LOCK AND DAM ROAD AUGUSTA, GA 30901

COORDINATES

Latitude (North):	33.3729240 - 33° 22' 22.52"
Longitude (West):	81.9403890 - 81° 56' 25.40"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	412520.7
UTM Y (Meters):	3692833.0
Elevation:	114 ft. above sea level

TΡ

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: Source:

Target Property:

Source:

U.S. Geological Survey N U.S. Geological Survey

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150914
Source:	USDA

Target Property Address: 1853 LOCK AND DAM ROAD AUGUSTA, GA 30901

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
A1	NEW SAVANNAH BLUFF L	1853 LOCK AND DAM RD	FINDS, ECHO		TP
A2	NEW SAVANNAH BLUFF L	1853 LOCK AND DAM RD	RCRA-CESQG		TP
3	NEW SAVANNAH BLUFF L	2103 LOCK & DAM ROAD	GA TIER 2	Higher	1 ft.

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
NEW SAVANNAH BLUFF L 1853 LOCK AND DAM RD	FINDS Registry ID:: 110024869882	N/A
AUGUSTA, GA 30906	ECHO Registry ID: 110024869882	
NEW SAVANNAH BLUFF L 1853 LOCK AND DAM RD AUGUSTA, GA 30906	RCRA-CESQG EPA ID:: GAR000045997	GAR000045997

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

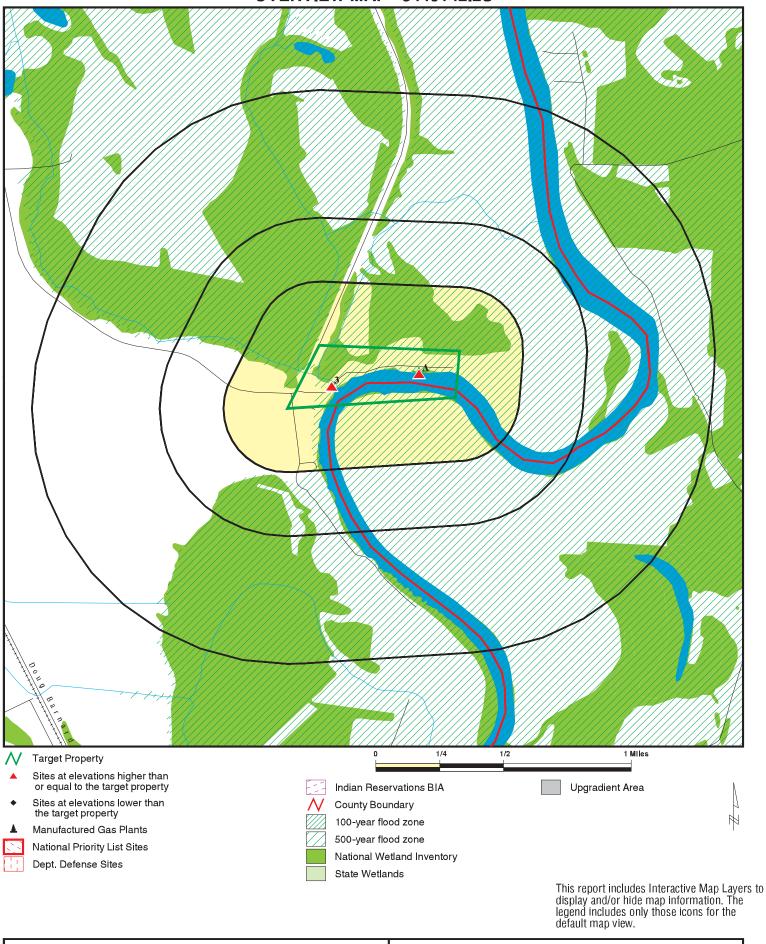
Unmappable (orphan) sites are not considered in the foregoing analysis. GA TIER 2: A review of the GA TIER 2 list, as provided by EDR, and dated 12/31/2016 has revealed that there is 1 GA TIER 2 site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NEW SAVANNAH BLUFF L Facility Id: 4512817	2103 LOCK & DAM ROAD	0 - 1/8 (0.000 mi.)	3	8

	Zip Database(s)	
		PRIOR T
	Site Address	OLD LOCK DAM ROAD JUST PRIOR T
ORPHAN SUMMARY	Site Name	S102601645 UNKNOWNLOCK DAM BRIDGE FIRE
	EDR ID	102601645
Count: 1 records.	City	A

TC5449142.2s Page 12

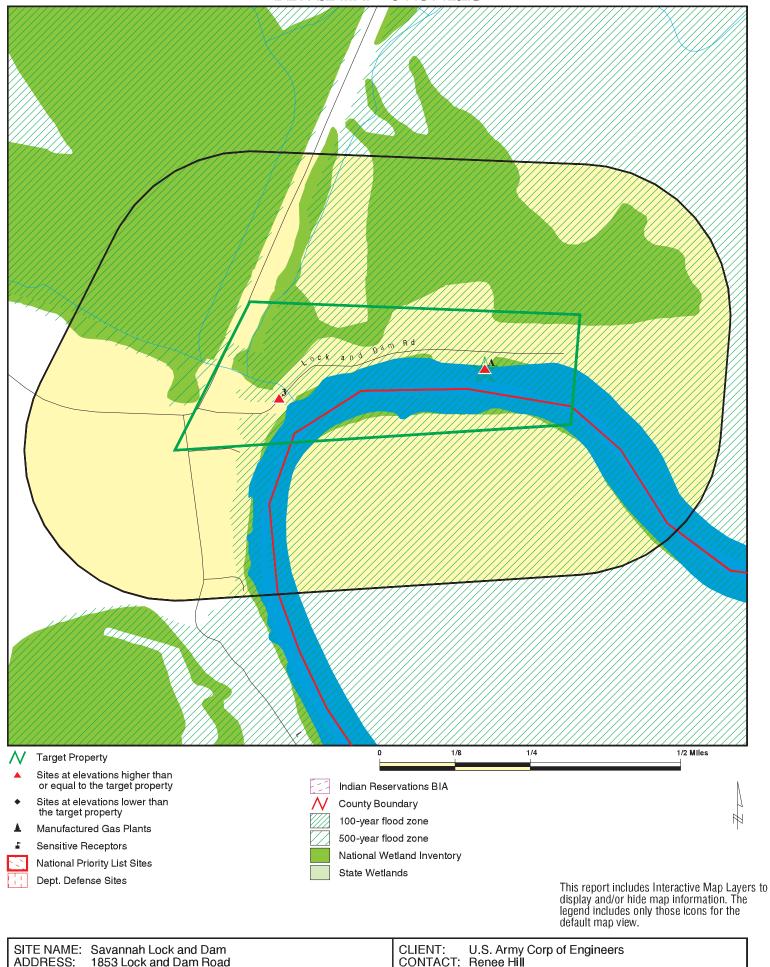
OVERVIEW MAP - 5449142.2S



SITE NAME:Savannah Lock and DamCLIENT:U.S. Army Corp of EngineersADDRESS:1853 Lock and Dam Road
Augusta GA 30901INQUIRY #:5449142.2sLAT/LONG:33.372924 / 81.940389DATE:October 10, 2018 9:29 am

Copyright © 2018 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 5449142.2S



DATE: October 10, 2018 9:30 am Copyright © 2018 EDR, Inc. © 2015 TomTom Rel. 2015.

INQUIRY #: 5449142.2s

Augusta GA 30901

33.372924 / 81.940389

LAT/LONG:

Database (Miles) Search Distance Target (Miles) Property		< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted	
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 0.001		0 0 0	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL si	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	ist						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD f	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250	1	0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 1
Federal institutional con engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equive	alent CERCLIS	S						
GA SHWS SC SHWS GA NON-HSI	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
State and tribal landfill a solid waste disposal sit								
GA SWF/LF SC SWF/LF	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal leaking	storage tank l	lists						
GA LUST	0.500		0	0	0	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SC LUST INDIAN LUST	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal register	ed storage ta	nk lists						
FEMA UST GA UST SC UST GA AST SC AST INDIAN UST	0.250 0.250 0.250 0.250 0.250 0.250		0 0 0 0 0	0 0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0
State and tribal institution control / engineering co		es						
GA AUL GA INST CONTROL SC AUL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal voluntar	ry cleanup sit	es						
GA VCP SC VCP INDIAN VCP	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal Brownfi	elds sites							
GA BROWNFIELDS SC BROWNFIELDS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
ADDITIONAL ENVIRONME	NTAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	Solid							
GA HIST LF GA SWRCY SC SWRCY INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500 0.500 0.500		0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	NR NR NR NR NR NR	NR NR NR NR NR NR	0 0 0 0 0 0 0
Local Lists of Hazardou Contaminated Sites	s waste /							
US HIST CDL GA CDL SC CDL GA DEL SHWS US CDL	0.001 0.001 0.001 1.000 0.001		0 0 0 0	NR NR NR 0 NR	NR NR NR 0 NR	NR NR NR 0 NR	NR NR NR NR	0 0 0 0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted		
Records of Emergency F	Records of Emergency Release Reports									
HMIRS GA SPILLS SC SPILLS GA SPILLS 90 SC SPILLS 90	0.001 0.001 0.001 0.001 0.001		0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0		
Other Ascertainable Rec	ords									
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS FTTS MLTS COAL ASH DOE COAL ASH DOE COAL ASH EPA PCB TRANSFORMER RADINFO HIST FTTS DOT OPS CONSENT INDIAN RESERV FUSRAP UMTRA LEAD SMELTERS US AIRS US MINES ABANDONED MINES FINDS ECHO DOCKET HWC UXO FUELS PROGRAM GA AIRS SC AIRS	0.250 1.000 1.000 0.500 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 1.000 0.001 1.000 0.001 0.	1	$\begin{smallmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $	0 0 0 0 RR 0 RR R 0 R RR RR RR R R 0 R R 0 R 0 0 RR 0 R R RR R	NR O O O RRRR RR O R RRR RRR RR O R O NR O O RRR RR RR O R RRR RR	NR 0 0 RR R R R R O R R R R R R R R R R R	NR R R R R R R R R R R R R R R R R R R			
GA COAL ASH SC COAL ASH GA DRYCLEANERS	0.500 0.500 0.250		0 0 0	0 0 0	0 0 NR	NR NR NR	NR NR NR	0 0 0		

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SC DRYCLEANERS	0.250		0	0	NR	NR	NR	0
GA Financial Assurance	0.001		0	NR	NR	NR	NR	0
SC Financial Assurance	0.001		0	NR	NR	NR	NR	0
GA NPDES	0.001		0	NR	NR	NR	NR	0
SC NPDES	0.001		0	NR	NR	NR	NR	0
GA TIER 2	0.001		1	NR	NR	NR	NR	1
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERN	IMENT ARCHIV	ES						
Exclusive Recovered Go	vt. Archives							
GA RGA HWS	0.001		0	NR	NR	NR	NR	0
SC RGA HWS	0.001		0	NR	NR	NR	NR	0
GA RGA LF	0.001		0	NR	NR	NR	NR	0
SC RGA LF	0.001		0	NR	NR	NR	NR	0
GA RGA LUST	0.001		0	NR	NR	NR	NR	0
SC RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals		3	1	0	0	0	0	4

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID Direction Distance		DINGS		EDR ID Number
Elevation	Site		Database(s)	EPA ID Number
A1 Target Property	NEW SAVANNAH BLUFF LOCK AND DAM 1853 LOCK AND DAM RD AUGUSTA, GA 30906		FINDS ECHO	1009402562 N/A
Actual:	Click here for full text details			
114 ft.	FINDS Registry ID:: 110024869882			
	ECHO Registry ID: 110024869882			
A2 Target Property	NEW SAVANNAH BLUFF LOCK AND DAM 1853 LOCK AND DAM RD AUGUSTA, GA 30906		RCRA-CESQG	1009398525 GAR000045997
Actual:	Click here for full text details			
114 ft.	RCRA-CESQG EPA Id: GAR000045997			
3	NEW SAVANNAH BLUFF LOCK & DAM 2103 LOCK & DAM ROAD		GA TIER 2	S117050811 N/A
< 1/8 1 ft.	AUGUSTA, GA 30906			
Relative: Higher	Click here for full text details GA TIER 2 Facility Id: 4512817			

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
GA		Permitted Facility & Emissions Listing	Department of Natural Resources	08/20/2018	08/23/2018	09/21/2018
GA	AST	Above Ground Storage Tanks	Office of Insurance & Safety Fire Commissione	06/04/2012	06/05/2012	06/14/2012
GA	AUL	Uniform Environmental Covenants	Department of Natural Resources	03/19/2018	05/08/2018	06/21/2018
GA	BROWNFIELDS	Brownfields Public Record List	Department of Natural Resources	06/06/2018	08/06/2018	08/13/2018
GA	CDL	Clandestine Drug Labs	Georgia Bureau of Investigation	06/02/2016	06/13/2016	08/15/2016
GA	COAL ASH	Coal Ash Disposal Site Listing	Department of Natural Resources	08/01/2014	08/05/2014	09/02/2014
GA	DEL SHWS	Delisted Hazardous Site Inventory Listing	Department of Natural Resources	07/01/2018	07/06/2018	08/13/2018
GA	DRYCLEANERS	Drycleaner Database	Department of Natural Resources	12/22/2014	12/23/2014	01/27/2015
GA	Financial Assurance 1	Financial Assurance Information Listing	Department of Natural Resources	06/14/2018	09/12/2018	09/21/2018
GA	Financial Assurance 2	Financial Assurance Information Listing	Department of Natural Resources	09/10/2018	09/11/2018	09/21/2018
GA	HIST LF	Historical Landfills	Department of Natural Resources	01/15/2003	01/20/2004	02/06/2004
GA	INST CONTROL	Public Record List	Department of Natural Resources	06/06/2018	08/06/2018	08/13/2018
GA	LUST	List of Leaking Underground Storage Tanks	Environmental Protection Division	03/30/2018	06/13/2018	06/21/2018
GA	NON HSI	Non-Hazardous Site Inventory	Rindt-McDuff Associates, Inc.	06/30/2018	07/24/2018	08/13/2018
GA		NPDES Wastewater Permit List	Department of Natural Resoruces	08/01/2018	08/07/2018	08/13/2018
GA	RGA HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Environmental Protection		07/01/2013	12/24/2013
GA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Natural Resources		07/01/2013	01/13/2014
GA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Environmental Protection Division		07/01/2013	12/24/2013
GA	SHWS	Hazardous Site Inventory	Department of Environmental Protection	07/01/2018	07/06/2018	08/13/2018
GA	SPILLS	Spills Information	Department of Natural Resources	05/18/2018	05/22/2018	06/26/2018
GA		SPILLS90 data from FirstSearch	FirstSearch		01/03/2013	02/11/2013
-	SWF/LF	Solid Waste Disposal Facilities	Department of Natural Resources		11/01/2017	
GA	SWRCY	Recycling Center Listing	Department of Community Affairs	07/06/2018	07/10/2018	08/15/2018
	TIER 2	Tier 2 Data Listing	Department of Natural Resources	12/31/2016	08/25/2017	10/30/2017
GA	UST	Underground Storage Tank Database	Environmental Protection Division	06/14/2018	09/12/2018	09/21/2018
GA		Voluntary Cleanup Program site	DNR	03/19/2018	05/29/2018	06/21/2018
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	09/10/2018	09/11/2018	09/14/2018
SC	AIRS	Permiited Airs Facility Listing	Department of Health & Environmental Control	08/28/2018	08/29/2018	09/18/2018
SC	AST	Aboveground Storage Tank List	Department of Health and Environmental Contro	03/25/2004	08/04/2004	09/23/2004
SC	AUL	Land Use Controls	Department of Health & Environmental Control	06/12/2018	06/14/2018	07/20/2018
SC	BROWNFIELDS	Brownfields Sites Listing	Department of Health & Environmental Control	07/12/2018	07/17/2018	08/10/2018
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
SC	CDL	Clandestine Drug Lab Sites	Department of Health & Environmental Control		01/26/2012	
SC	CDL 2	Clandestine Drug Lab Listing	South Carolina Law Enforcement Division	06/04/2018	06/19/2018	08/10/2018
SC	COAL ASH	Coal Ash Disposal Sites	Department of Health & Environmental Control	03/20/2018	03/22/2018	04/25/2018
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	06/30/2018	07/17/2018	10/05/2018
US	CORRACTS	Corrective Action Report	EPA	03/01/2018	03/28/2018	06/22/2018
	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/31/2018	07/26/2018	10/05/2018
	DOD	Department of Defense Sites	USGS		11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	07/31/2012	08/07/2012	09/18/2012
SC	DRYCLEANERS	Drycleaner Database	Department of Health & Environmental Control	01/08/2018	02/01/2018	03/21/2018
US	Delisted NPL	National Priority List Deletions	EPA	07/17/2018	08/09/2018	09/07/2018
	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	09/02/2018	09/05/2018	09/14/2018
		······································				

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	06/18/2018	06/27/2018	09/14/2018
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	11/07/2016	01/05/2017	04/07/2017
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FEMA UST	Underground Storage Tank Listing	FEMA	05/15/2017	05/30/2017	10/13/2017
US	FINDS	Facility Index System/Facility Registry System	EPA	08/07/2018	09/05/2018	10/05/2018
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	08/22/2018	08/22/2018	10/05/2018
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
SC	Financial Assurance 1	Financial Assurance Information Listing	Department of Health & Environmental Control	06/12/2018	06/15/2018	07/05/2018
SC	Financial Assurance 2	Financial Assurance Information Listing	Department of Health & Environmental Control	06/12/2018	06/15/2018	07/05/2018
SC	Financial Assurance 3	Financial Assurance Information Listing	Department of Health & Environmental Control	07/24/2018	07/27/2018	08/10/2018
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	03/26/2018	03/27/2018	06/08/2018
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/13/2018	05/18/2018	07/20/2018
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/10/2018	05/18/2018	07/20/2018
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/13/2018	05/18/2018	07/20/2018
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/10/2018	05/18/2018	07/20/2018
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	07/17/2018	08/09/2018	10/05/2018
	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	07/17/2018	08/09/2018	10/05/2018
US	LUCIS	Land Use Control Information System	Department of the Navy	05/14/2018	05/18/2018	07/20/2018
	LUST	Leaking Underground Storage Tank List	Department of Health and Environmental Contro	08/20/2018	08/21/2018	09/18/2018

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
SC	NPDES	Waste Water Treatment Facilities Listing	Department of Health & Environmental Control	07/24/2018	07/26/2018	08/10/2018
US	NPL	National Priority List	EPA	07/17/2018	08/09/2018	09/07/2018
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	06/01/2017	06/09/2017	10/13/2017
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	PRP	Potentially Responsible Parties	EPA	10/25/2013	10/17/2014	10/20/2014
US	Proposed NPL	Proposed National Priority List Sites	EPA	07/17/2018	08/09/2018	09/07/2018
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/02/2018	07/05/2018	10/05/2018
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
SC	RGA HWS	Recovered Government Archive State Hazardous Waste Facilitie	Department of Health and Environmental Contro		07/01/2013	01/03/2014
	RGALF	Recovered Government Archive Solid Waste Facilities List	Department of Health and Environmental Contro		07/01/2013	
SC	RGALUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Health and Environmental Contro		07/01/2013	
	RMP	Risk Management Plans	Environmental Protection Agency	08/01/2018	08/22/2018	10/05/2018
US	ROD	Records Of Decision	EPA	07/17/2018	08/09/2018	10/05/2018
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017		04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	07/17/2018	08/09/2018	09/07/2018
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	07/17/2018	08/09/2018	09/07/2018
SC	SHWS	Site Assessment Section Project List	Department of Health and Environmental Contro	06/15/2018	06/22/2018	08/10/2018
SC	SPILLS	Spill List	Department of Health and Environmental Contro	08/29/2018	08/30/2018	09/18/2018
SC	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch		01/03/2013	03/07/2013
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
SC	SWF/LF	Permitted Landfills List	Department of Health and Environmental Contro	06/11/2018	06/12/2018	07/05/2018
SC	SWRCY	Solid Waste Recycling Facilities	Department of Health & Enviornmental Control	06/30/2018	08/30/2018	09/18/2018
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2016	01/10/2018	01/12/2018
US		Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	06/23/2017		11/03/2017
	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (EPA	10/12/2016		02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	06/18/2018	06/20/2018	09/14/2018
	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	05/18/2018	06/20/2018	09/14/2018
	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	07/31/2018	08/28/2018	09/14/2018
	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	05/31/2018	06/27/2018	10/05/2018
	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	05/18/2018	06/20/2018	09/14/2018
	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	07/31/2018	08/28/2018	09/14/2018
	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	08/01/2018	08/29/2018	10/05/2018
	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
	UST	Comprehensive Underground Storage Tanks	Department of Health and Environmental Contro	03/26/2018	03/29/2018	04/25/2018
US	UXO	Unexploded Ordnance Sites	Department of Defense	09/30/2017	06/19/2018	09/14/2018
	VCP	Voluntary Cleanup Sites	Department of Health and Environmental Contro		07/17/2018	08/10/2018
00		voluntary oloanup olico	Department of Fleath and Environmental Contro	01/12/2010	01/11/2010	00/10/2010

St CT NJ PA RI	Acronym CT MANIFEST NJ MANIFEST NY MANIFEST PA MANIFEST RI MANIFEST	Full Name Hazardous Waste Manifest Data Manifest Information Facility and Manifest Data Manifest Information Manifest information	Government Agency Department of Energy & Environmental Protection Department of Environmental Protection Department of Environmental Protection Department of Environmental Management	Gov Date 08/10/2018 12/31/2017 07/01/2018 12/31/2016 12/31/2017	Arvl. Date 08/10/2018 07/13/2018 08/01/2018 07/25/2017 02/23/2018	Active Date 09/10/2018 08/01/2018 08/31/2018 09/25/2017 04/09/2018
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	12/31/2017	06/15/2018	07/09/2018
US US US US GA	AHA Hospitals Medical Centers Nursing Homes Public Schools Private Schools Daycare Centers	Sensitive Receptor: AHA Hospitals Sensitive Receptor: Medical Centers Sensitive Receptor: Nursing Homes Sensitive Receptor: Public Schools Sensitive Receptor: Private Schools Sensitive Receptor: Child Care Centers	American Hospital Association, Inc. Centers for Medicare & Medicaid Services National Institutes of Health National Center for Education Statistics National Center for Education Statistics Department of Human Resources			
US US US US US	Flood Zones NWI State Wetlands Topographic Map Oil/Gas Pipelines Electric Power Transmission Line D	100-year and 500-year flood zones National Wetlands Inventory Wetlands Inventory	Emergency Management Agency (FEMA) U.S. Fish and Wildlife Service Georgia GIS Clearinghouse U.S. Geological Survey PennWell Corporation PennWell Corporation			

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SAVANNAH LOCK AND DAM 1853 LOCK AND DAM ROAD AUGUSTA, GA 30901

TARGET PROPERTY COORDINATES

Latitude (North):	33.372924 - 33° 22' 22.53"
Longitude (West):	81.940389 - 81° 56' 25.40"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	412520.7
UTM Y (Meters):	3692833.0
Elevation:	114 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: Version Date:	6046007 MECHANIC HILL, GA 2014
North Map:	6044439 AUGUSTA EAST, GA
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- Groundwater flow direction, and
 Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

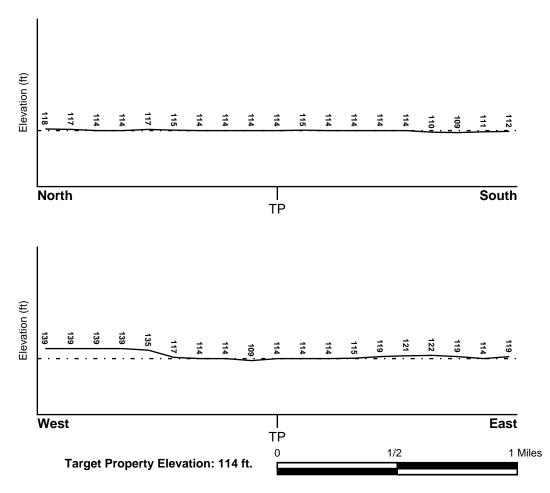
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
45003C0627E	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
45003C0489E 45003C0493E 45003C0631E	FEMA FIRM Flood data FEMA FIRM Flood data FEMA FIRM Flood data
NATIONAL WETLAND INVENTORY	
	NWI Electronic
NWI Quad at Target Property	Data Coverage
MECHANIC HILL	YES - refer to the Overview Map and Detail

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW Map

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

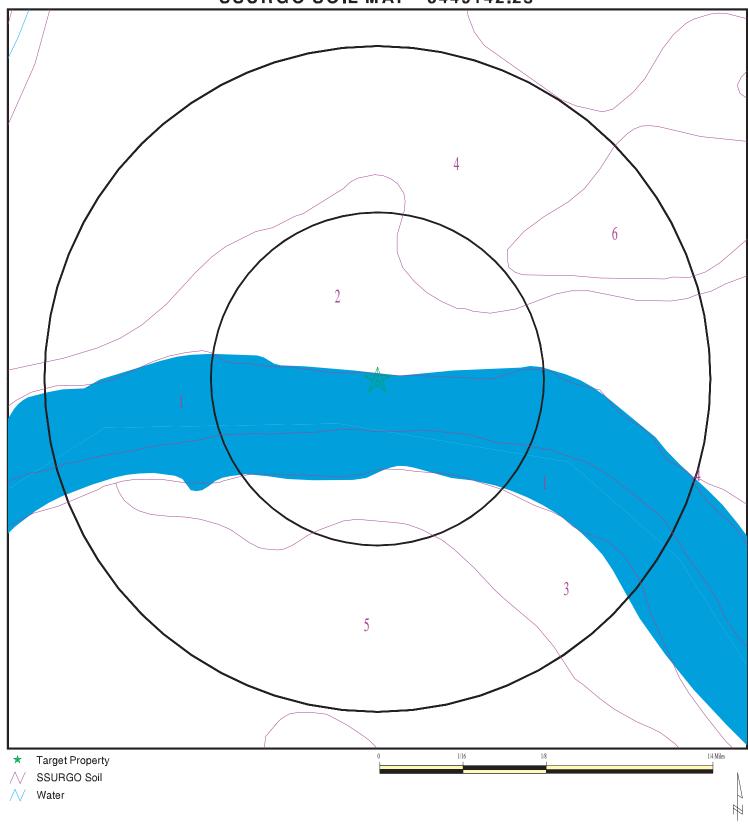
ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	Mesozoic	Category:	Stratified Sequence
System:	Cretaceous		
Series:	Woodbine and Tuscaloosa Groups		
Code:	uK1 (decoded above as Era, System & Se	eries)	

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).





SITE NAME:	Savannah Lock and Dam 1853 Lock and Dam Road
ADDRESS:	1853 Lock and Dam Road
	Augusta GA 30901
LAT/LONG:	33.372924 / 81.940389

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name:	Water
Soil Surface Texture: Hydrologic Group:	Not reported
Soil Drainage Class: Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Not Reported
Corrosion Potential - Uncoated Steel: Depth to Bedrock Min:	Not Reported > 0 inches
	-

Soil Map ID: 2	
Soil Component Name:	Riverview
Soil Surface Texture:	silt loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 122 inches

	Soil Layer Information						
	Boundary	Classi	Classification				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	hydraulic conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 4.5
2	7 inches	33 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 4.5
3	33 inches	64 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6 Min: 4.5

Soil Map ID: 3	
Soil Component Name:	ТОССОА
Soil Surface Texture: Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Moderately well drained
Hydric Status: Partially hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 114 inches

			Soil Layer	Information			
	Boundary		Classification		Saturated hydraulic		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	9 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 6.5 Min: 5.1
2	9 inches	72 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 6.5 Min: 5.1

Soil Map ID: 4	
Soil Component Name:	Chewacla
Soil Surface Texture:	silt loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Somewhat poorly drained
Hydric Status: Partially hydric	
Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 31 inches

	Soil Layer Information						
	Boundary			Classi	fication	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 4.5
2	5 inches	22 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 4.5

	Soil Layer Information						
	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
3	22 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 4.5

Soil Map ID: 5	
Soil Component Name:	SHELLBLUFF
Soil Surface Texture: Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 122 inches

	Soil Layer Information						
	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 6.5 Min: 4.5
2	5 inches	70 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 6.5 Min: 4.5

Soil Map ID: 6	
Soil Component Name:	Hydraquents
Soil Surface Texture:	mucky silty clay loam
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	mucky silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 5.5 Min: 3.6
2	7 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 5.5 Min: 3.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
1	USGS40000262835	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No PWS System Found	t	

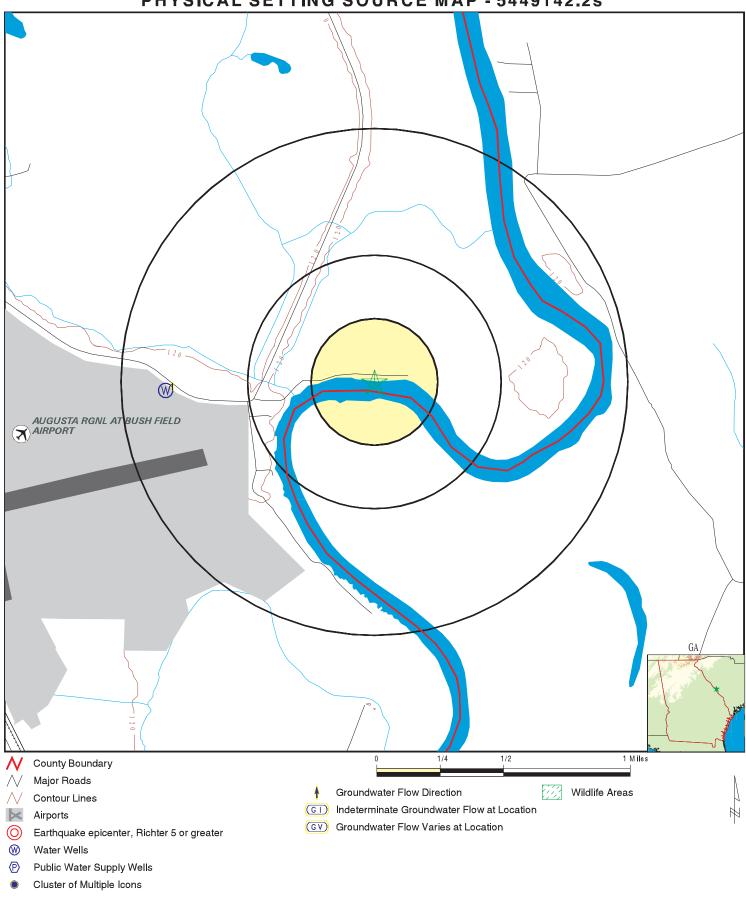
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID No Wells Found WELL ID

LOCATION FROM TP

PHYSICAL SETTING SOURCE MAP - 5449142.2s



SITE NAME:Savannah Lock and DamCLIENT:U.S. Army Corp of EngineersADDRESS:1853 Lock and Dam Road Augusta GA 30901CONTACT:Renee HillLAT/LONG:33.372924 / 81.940389DATE:October 10, 2018 9:30 am
--

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation

Database EDR ID Number

1 West 1/2 - 1 Mile Higher

FED USGS USGS40000262835

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for RICHMOND County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L. : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 30901

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Source: Georgia GIS Clearinghouse Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS) This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Georgia Public Supply Wells Source: Georgia Department of Community Affairs Telephone: 404-894-0127

USGS Georgia Water Wells Source: USGS, Georgia District Office Telephone: 770-903-9100

DNR Managed Lands

Source: Department of Natural Resources

Telephone: 706-557-3032

This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information

Source: USGS Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA Telephone: 703-356-4020 Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

Savannah Lock and Dam

1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.8 October 10, 2018

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Site Name:

Client Name:

10/10/18

Savannah Lock and Dam 1853 Lock and Dam Road Augusta, GA 30901 EDR Inquiry # 5449142.8

U.S. Army Corp of Engineers 100 West Oglethorpe ave Savannah, GA 31402 Contact: Renee Hill



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:				
<u>Year</u>	Scale	Details	Source	
2017	1"=500'	Flight Year: 2017	USDA/NAIP	
2013	1"=500'	Flight Year: 2013	USDA/NAIP	
2010	1"=500'	Flight Year: 2010	USDA/NAIP	
2007	1"=500'	Flight Year: 2007	USDA/NAIP	
1993	1"=500'	Acquisition Date: February 01, 1993	USGS/DOQQ	
1988	1"=500'	Flight Date: March 01, 1988	USGS	
1981	1"=500'	Flight Date: February 27, 1981	USDA	
1977	1"=500'	Flight Date: March 08, 1977	USDA	
1964	1"=500'	Flight Date: October 07, 1964	USGS	
1957	1"=500'	Flight Date: December 01, 1957	USDA	
1941	1"=500'	Flight Date: March 04, 1941	USDA	
1938	1"=500'	Flight Date: February 07, 1938	USDA	

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

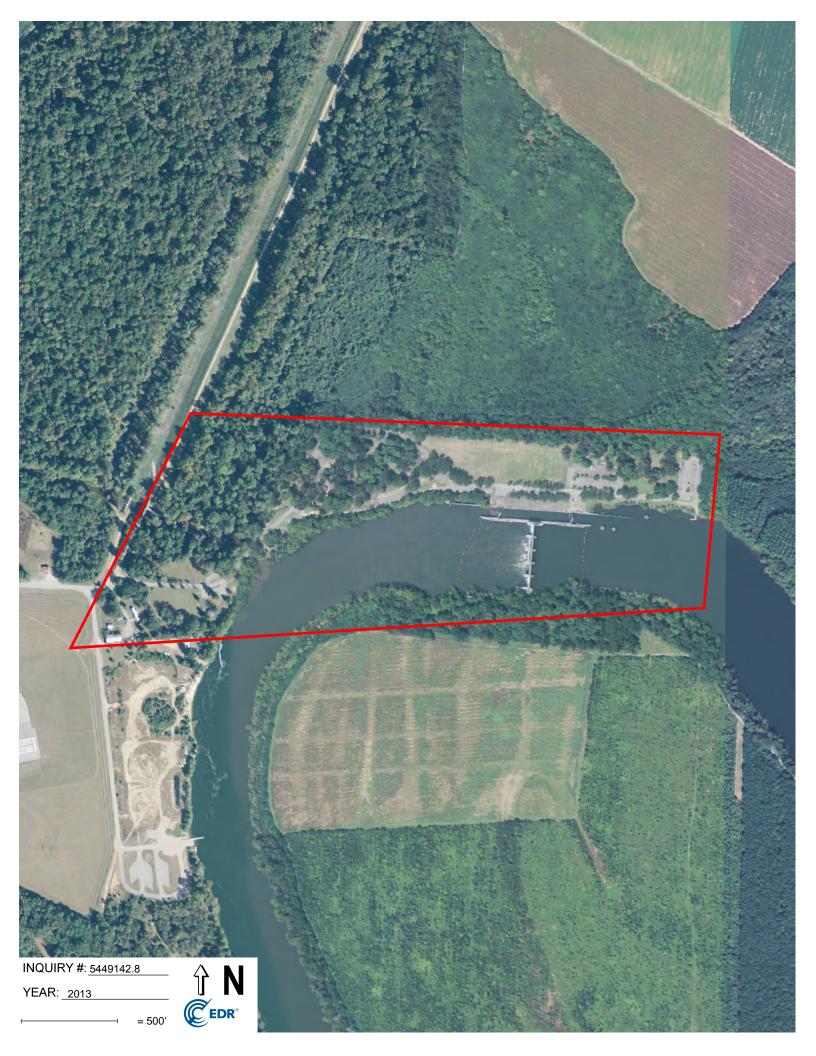
Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing on prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

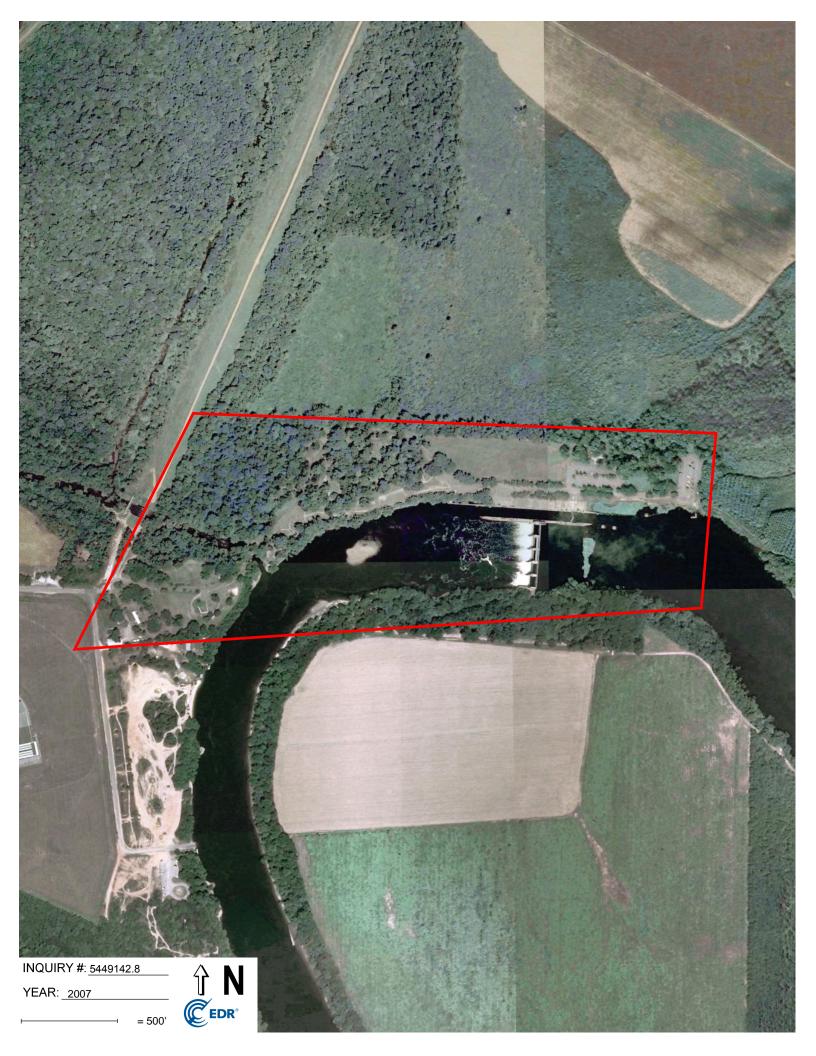
Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

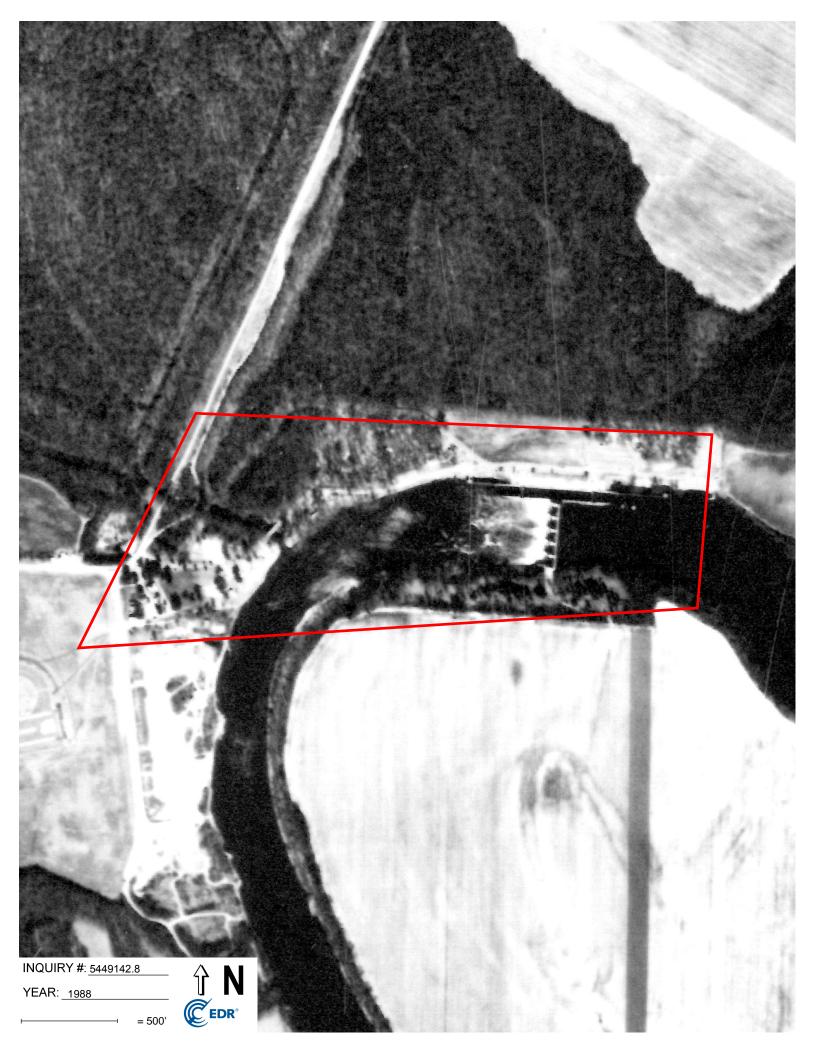




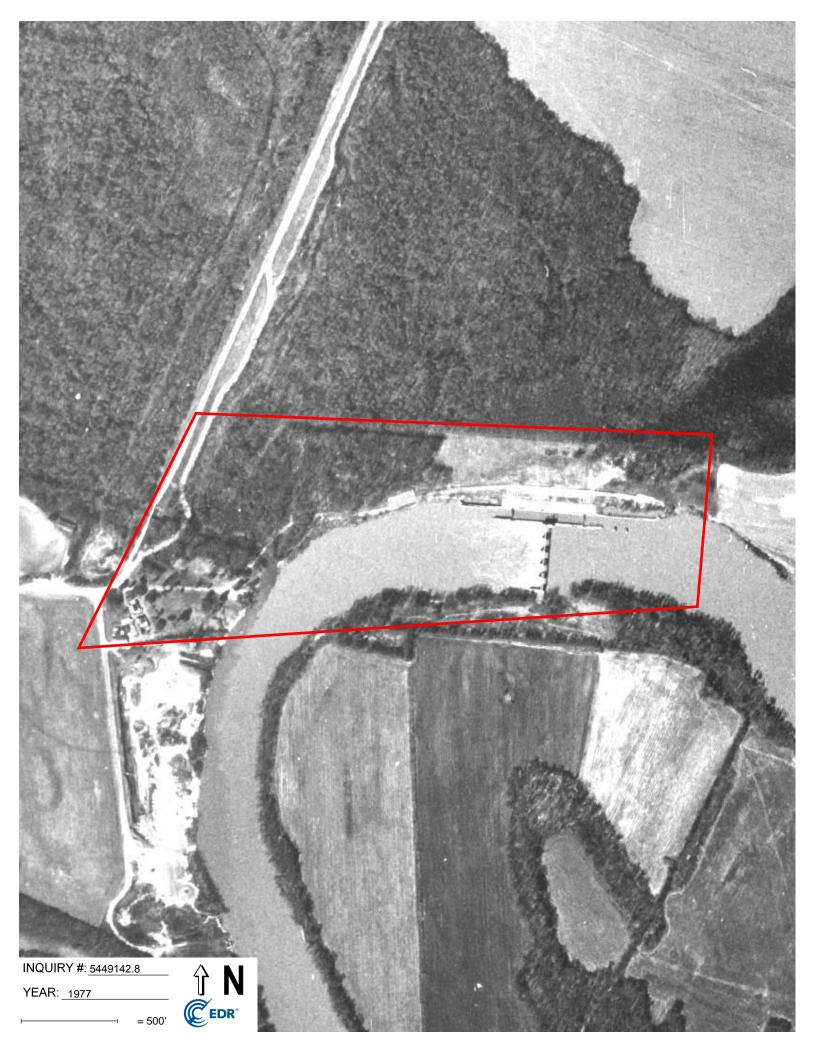


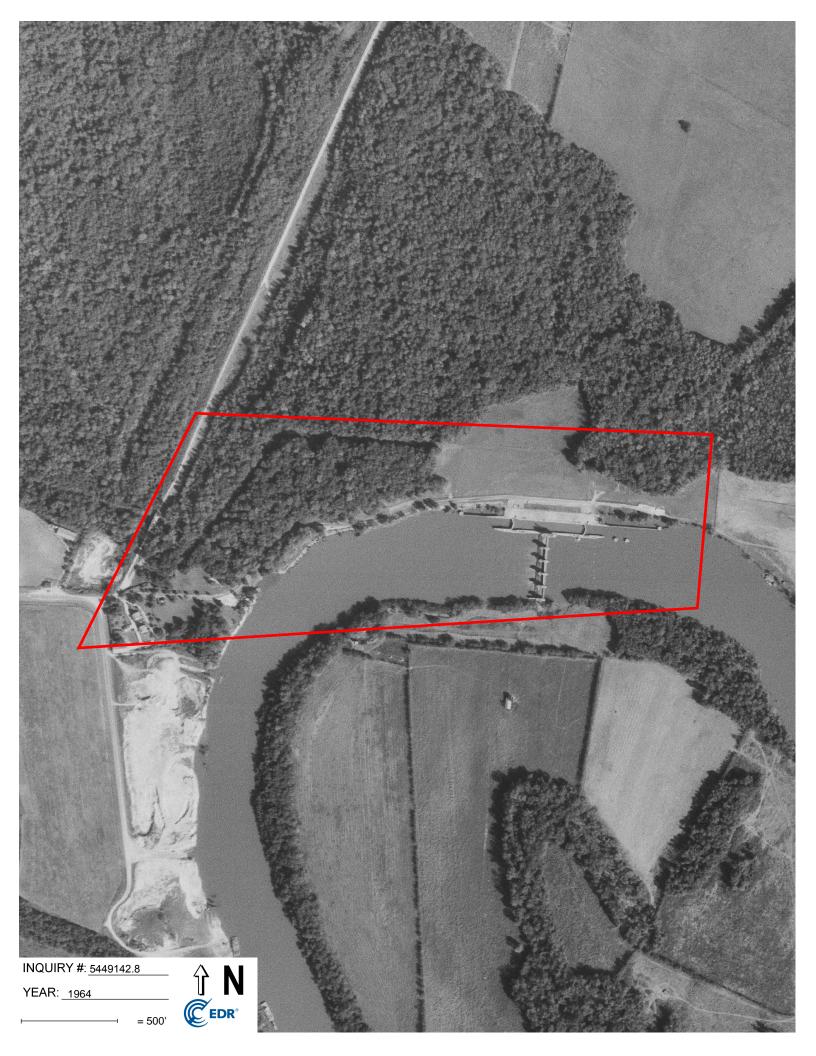


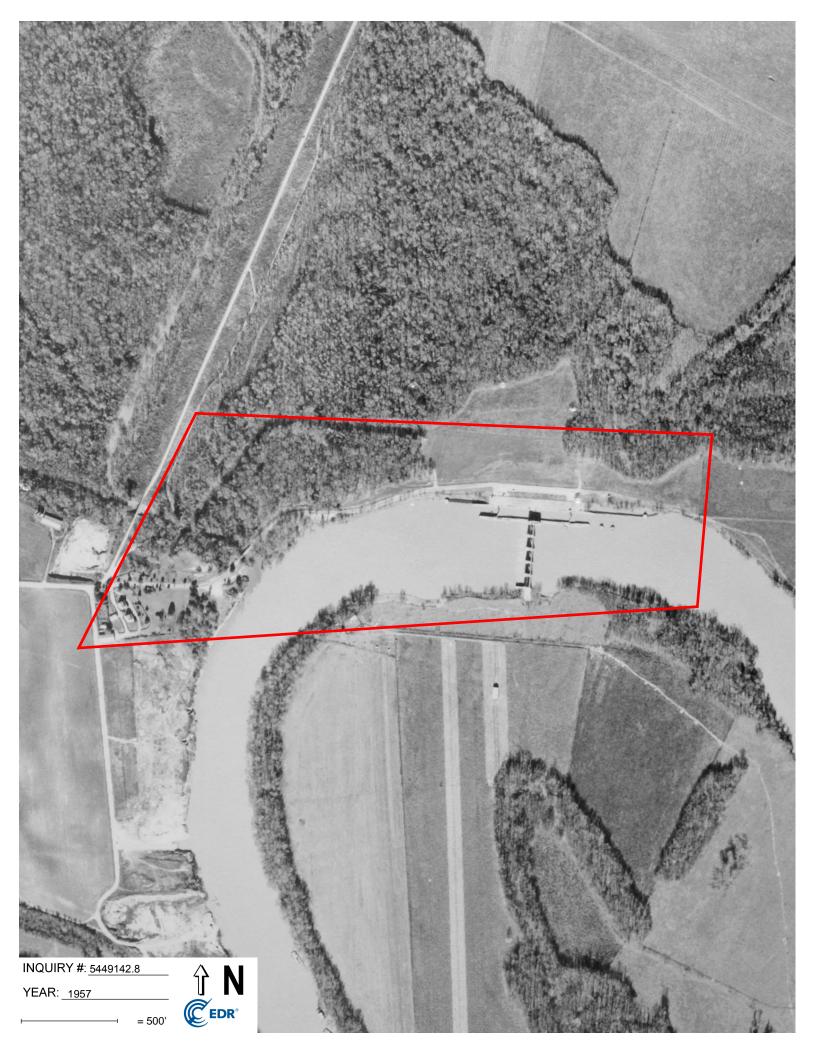


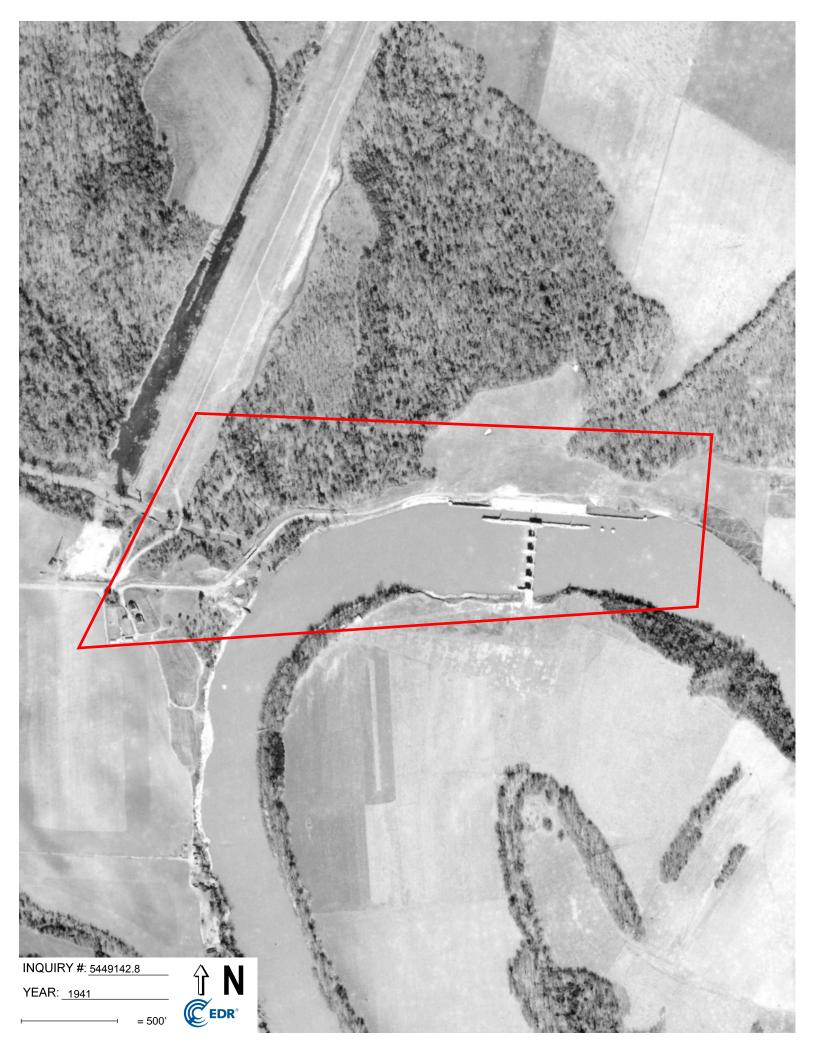














Savannah Lock and Dam 1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.4 October 10, 2018

EDR Historical Topo Map Report with QuadMatch™



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

EDR Historical Topo Map Report

Site Name:

Savannah Lock and Dam

1853 Lock and Dam Road

EDR Inquiry # 5449142.4

Augusta, GA 30901

Client Name:

U.S. Army Corp of Engineers 100 West Oglethorpe ave Savannah, GA 31402 Contact: Renee Hill



10/10/18

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by U.S. Army Corp of Engineers were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Resu	lts:	Coordinates:	
P.O.#	W33SJG82829799	Latitude:	33.372924 33° 22' 23" North
Project:	Savannah Lock and Dam	Longitude:	-81.940389 -81° 56' 25" West
-		UTM Zone:	Zone 17 North
		UTM X Meters:	412522.64
		UTM Y Meters:	3693025.49
		Elevation:	114.00' above sea level
Maps Provide	ed:		
2014			
1995			
1981			
1971			
1965			
1948			
1943			
1921			

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provide in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Augusta East 2014 7.5-minute, 24000



Mechanic Hill 2014 7.5-minute, 24000

1995 Source Sheets



Augusta East 1995 7.5-minute, 24000 Aerial Photo Revised 1995

1981 Source Sheets



Mechanic Hill 1981 7.5-minute, 24000 Aerial Photo Revised 1977

Augusta East 1981 7.5-minute, 24000 Aerial Photo Revised 1977

1971 Source Sheets



Mechanic Hill 1971 7.5-minute, 24000 Aerial Photo Revised 1971



Augusta East 1971 7.5-minute, 24000 Aerial Photo Revised 1971

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

Augusta East

7.5-minute, 24000

Aerial Photo Revised 1962

1965

1965 Source Sheets



Mechanic Hill 1965 7.5-minute, 24000 Aerial Photo Revised 1962





AUGUSTA 1948 15-minute, 50000

1943 Source Sheets

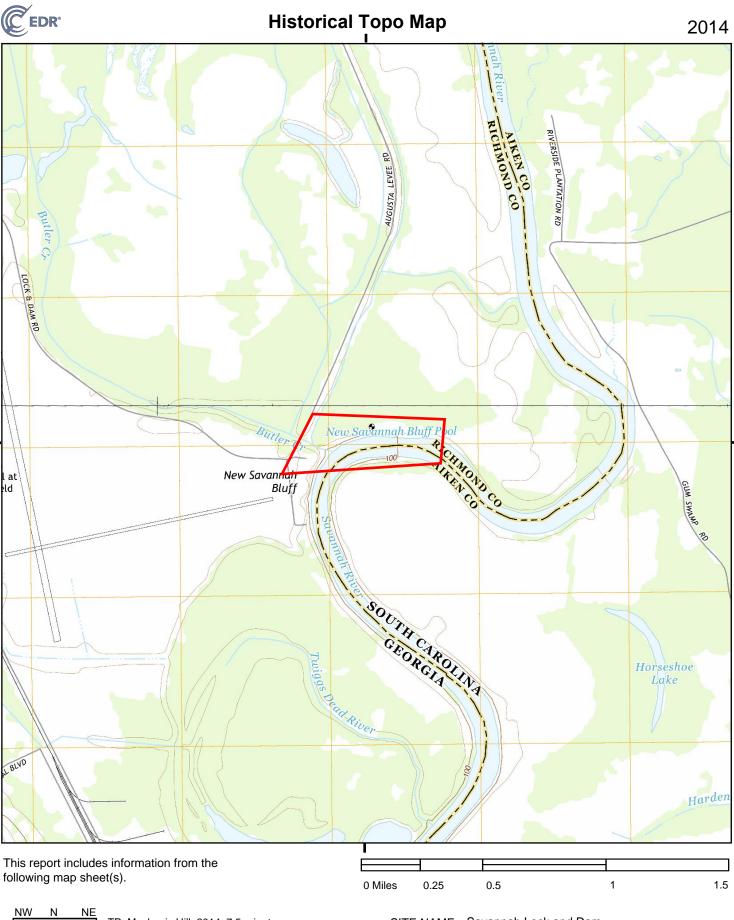


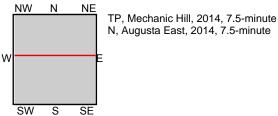
Augusta 1943 15-minute, 62500 Aerial Photo Revised 1941

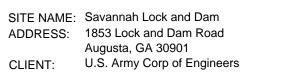
1921 Source Sheets

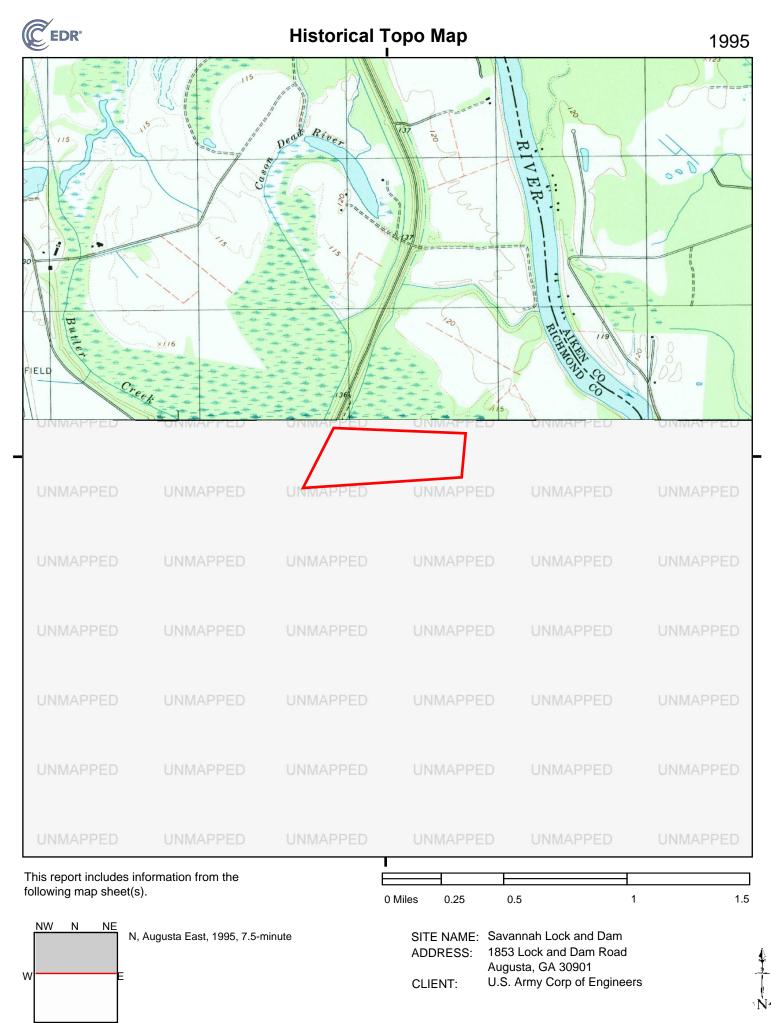


Augusta 1921 15-minute, 62500







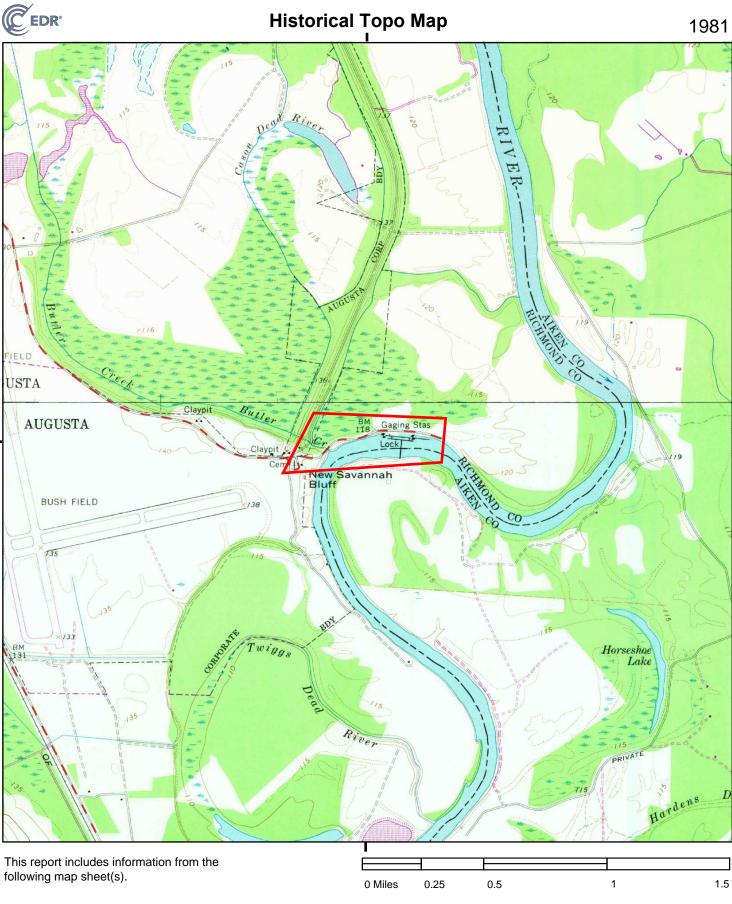


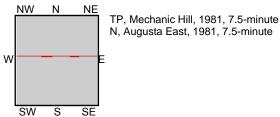
SW

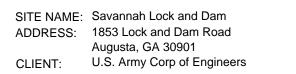
S

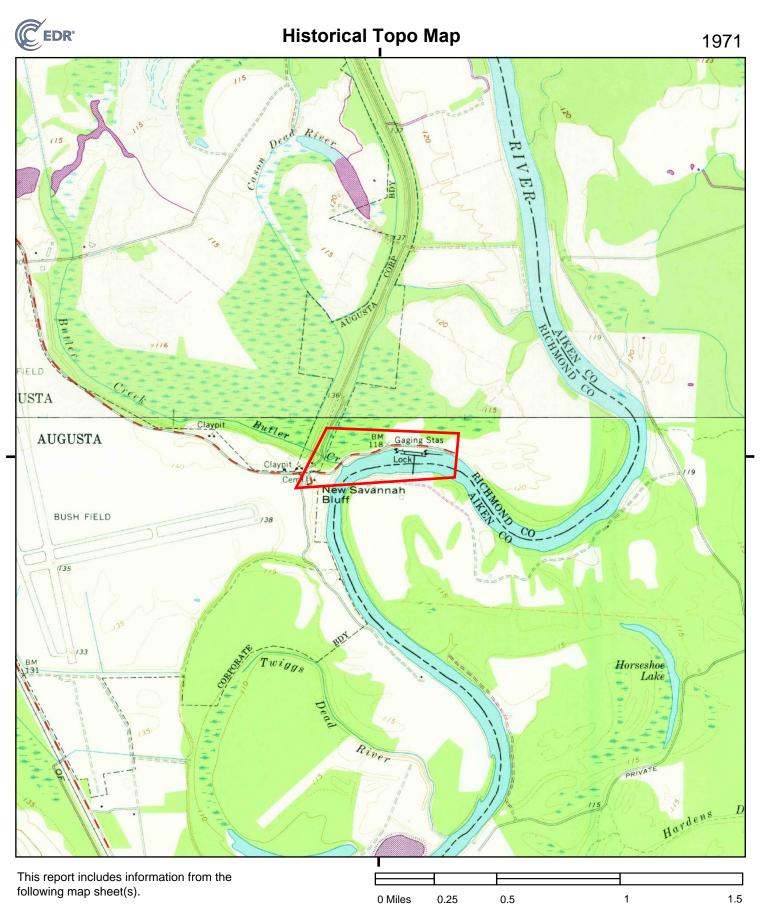
SE

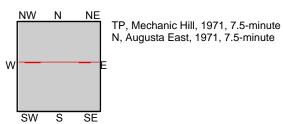
5449142 - 4 page 6





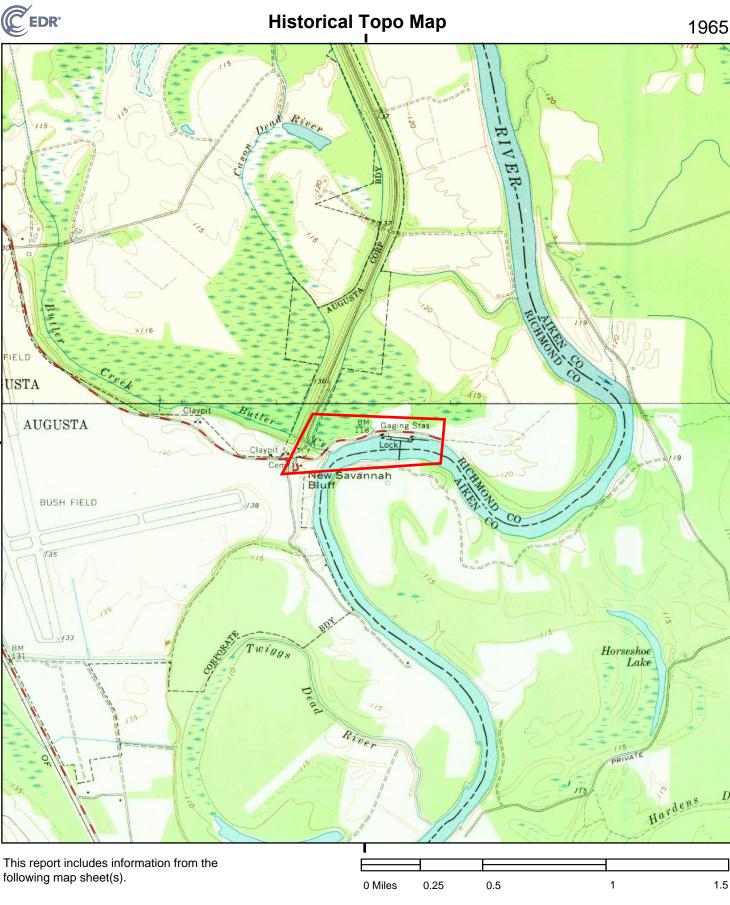


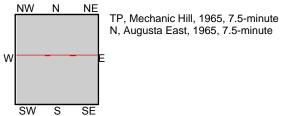


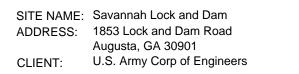


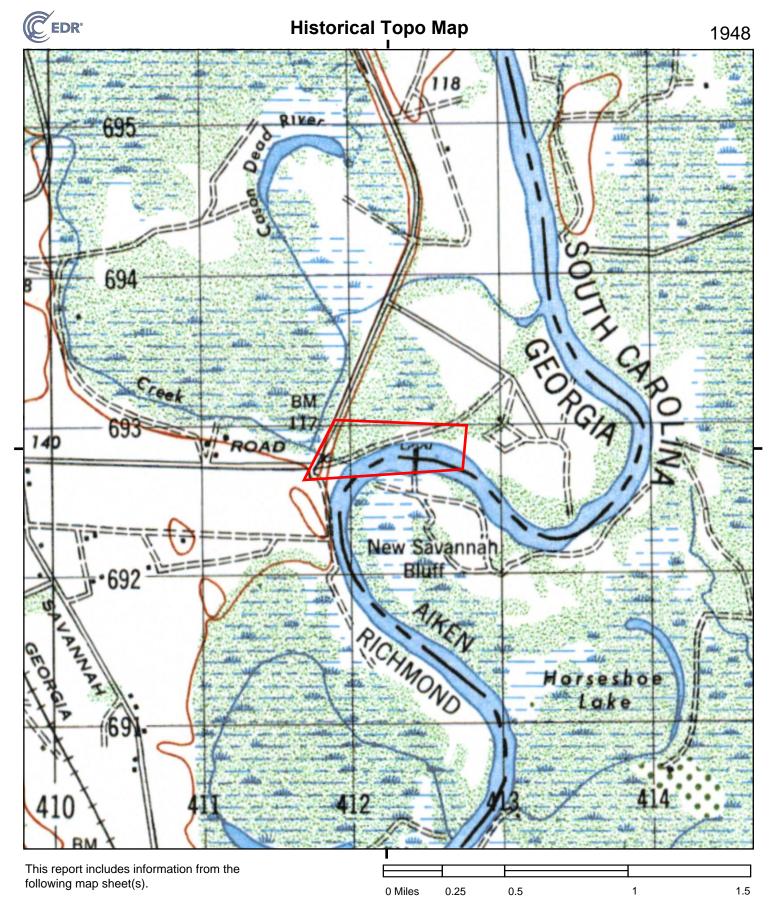
SITE NAME:	Savannah Lock and Dam
ADDRESS:	1853 Lock and Dam Road
	Augusta, GA 30901
CLIENT:	U.S. Army Corp of Engineers

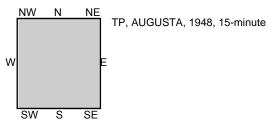
٠N



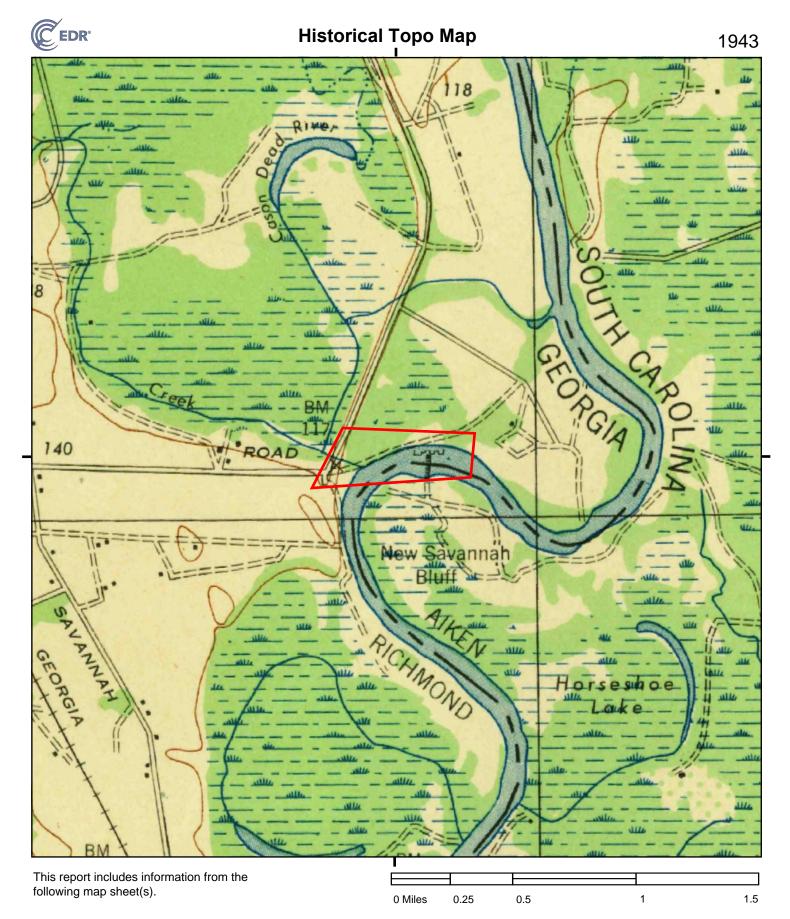


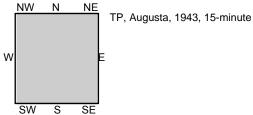




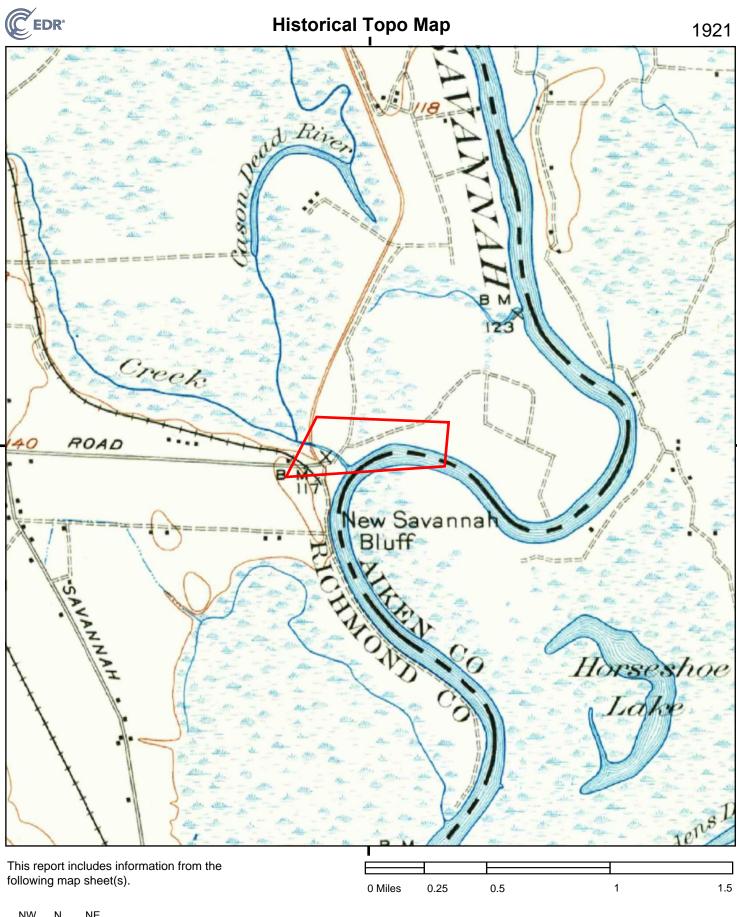


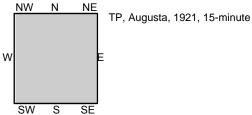
SITE NAME:	Savannah Lock and Dam
ADDRESS:	1853 Lock and Dam Road
	Augusta, GA 30901
CLIENT:	U.S. Army Corp of Engineers

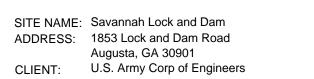




SITE NAME: Savannah Lock and Dam ADDRESS: 1853 Lock and Dam Road Augusta, GA 30901 CLIENT: U.S. Army Corp of Engineers







Savannah Lock and Dam 1853 Lock and Dam Road Augusta, GA 30901

Inquiry Number: 5449142.3 October 10, 2018

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report 10/10/18					
Site Name:	Client Name:				
Savannah Lock and Dam	U.S. Army Corp of Engineers	EDR °			
1853 Lock and Dam Road	100 West Oglethorpe ave				
Augusta, GA 30901	Savannah, GA 31402				
EDR Inquiry # 5449142.3	Contact: Renee Hill				

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by U.S. Army Corp of Engineers were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 53EE-4C30-9E56

PO # W33SJG82829799

Project Savannah Lock and Dam

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results Certification #: 53EE-4C30-9E56

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

University Publications of America

EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

U.S. Army Corp of Engineers (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provide in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.