



## Sustainability in Action

August 23, 2022

Mr. Chance Goodin, Manager  
Municipal Solid Waste Permits Section, MC-124  
Texas Commission on Environmental Quality  
12100 Park 35 Circle  
Building A, Room 122  
Austin, TX 78753-1808

Re: Permit Modification – VERDac Alternative Daily Cover  
Royal Oaks Landfill –Permit No. MSW-1614A  
Cherokee County, Texas

Dear Mr. Goodin:

The purpose of this permit modification is to request the use of VERDac Landfill Cover Pellets as alternative daily cover (ADC) at the referenced facility on a permanent basis. As noted in the status reports submitted to the TCEQ during the trial period, VERDac Landfill Cover Pellets has been used effectively at the site to control vectors, odors, and windblown waste. As requested in the Temporary Authorization Condition 7 of the July 29, 2021 approval letter, the ADC evaluation period covered all four seasons of the year.

To facilitate TCEQ's review, both a redline/strikeout copy (see Attachment 1) and a clean copy (see Attachment 2) have been included in the attached permit modification.

Please process this modification per Title 30 Texas Administrative Code (TAC) §305.70(k)(1) which allows for the use of an alternative daily cover material on a permanent basis.

Additionally, the TCEQ-20650 form which includes the applicants signature page (Page 5) is included in Attachment 4 of the permit modification. In accordance with Title 30 TAC §330.59(h)(1), a \$150 application fee has been submitted to the TCEQ, as documented on Page 1 of the TCEQ-20650 form.

One original and one copy are provided for your use and distribution. Consistent with Title 30 TAC §305.70(f), a copy of this submittal was sent to the TCEQ regional office. A copy of this submittal was placed in the site operating record for this facility.

During the course of your review, if you need additional information or have any questions, please call.

Sincerely,



Austin Sparks, P.E.  
Environmental Manager

Attachments: Attachment 1 – SOP Replacement Pages (Redline/Strikeout Copy)  
Attachment 2 – SOP Replacement Pages (Clean Copy)  
Attachment 3 – VERDAC Temporary Authorization Approval Letters  
Attachment 4 – TCEQ – 20650 Form  
Attachment 5 – Adjacent Landowners List and Map

cc: TCEQ Region 5  
Duane Weatherford, Pine Hill Farms Landfill TX, LP  
Ryne J. Spicer, P.E., Weaver Consultants Group, LLC

**ATTACHMENT 1**

**SOP REPLACEMENT PAGES (REDLINE/STRIKEOUT COPY)**

**ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A**

**PERMIT MODIFICATION**

**SITE OPERATING PLAN**

Prepared for

Pine Hill Farms Landfill TX, LP

November 2006

Revised June 2007

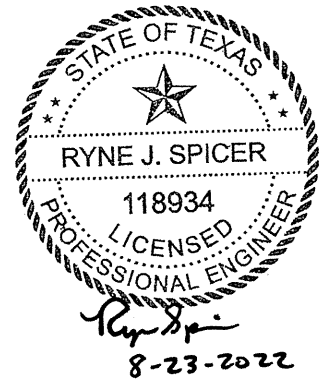
Revised June 2008

Revised October 2015

Revised May 2016

Revised September 2017

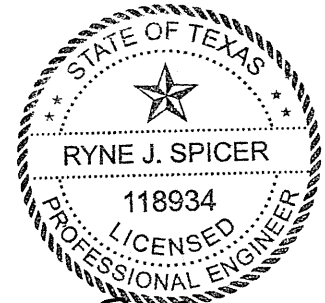
Revised August 2022



Prepared by

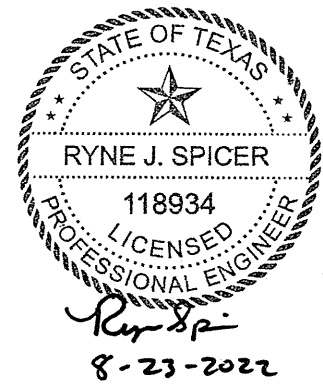
**Weaver Consultants Group, LLC**  
TBPE Registration No. F-3727  
6420 Southwest Boulevard, Suite 206  
Fort Worth, Texas 76109  
817-735-9770

WCG Project No. 0120-076-11-102



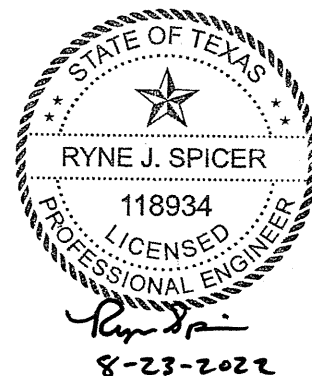
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**ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A**

**PERMIT MODIFICATION**

**SITE OPERATING PLAN  
APPENDIX D  
ALTERNATE DAILY COVER OPERATING  
PLAN INFORMATION**

Prepared for

Pine Hill Farms Landfill TX, LP

July 2006

Revised October 2015

Revised November 2017

Revised August 2022



*Ryne Spicer*  
8-23-2022

Prepared by

**Weaver Consultants Group, LLC**  
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WCG Project No. 0120-076-11-102



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ADC SUMMARY

D-1

**APPENDIX D-1**

Alternative Daily Cover Operating Plan Information

**APPENDIX D-2**

Alternative Daily Cover Approval Letters



## ADC SUMMARY

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The site is currently approved to use Bio-cover, Enviro-cover, Enviro-Plus, Enviro-Gro, and Quick Cover spray-on type ADC materials, and contaminated soils ADC, and VERDac Landfill Cover Pellets. Bio-cover, Enviro-cover, Enviro-Plus, and Enviro-Gro spray-type ADC materials were approved on February 20, 2002. Contaminated soil ADC was approved on March 24, 2016. The approval letter for Bio-Cover, Enviro-Cover, Enviro-Gro, contaminated soils, and VERDac are included in Appendix D-2. The ADCOP for Quick Cover, and contaminated soils, and VERDac Landfill Cover Pellets are provided on the following pages.

Consistent with §330.165(d), a temporary authorization will be submitted for any additional future ADC materials. Consistent with 30 TAC 330.165(d) (2), after a Temporary Authorization to use a new ADC material is approved, a status report for the new ADC material will be submitted on a two-month basis to the TCEQ describing the effectiveness of the alternative materials, any problems that may have occurred, and corrective actions required as a result of such problems. The trial period will be for two-180 day periods with an extension request to be submitted near the end of the first 180 day period. If no unresolved problems occur within the trial period, a permit modification per §305.70(k)(1) will be submitted to the TCEQ to obtain permanent approval of the ADC material.

ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A

PERMIT MODIFICATION

APPENDIX D-1  
ALTERNATIVE DAILY COVER OPERATING PLAN

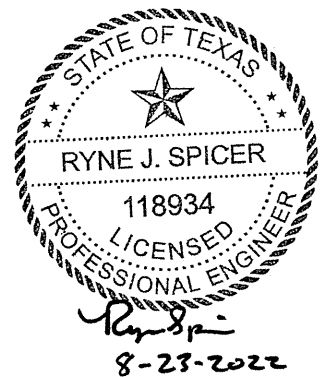
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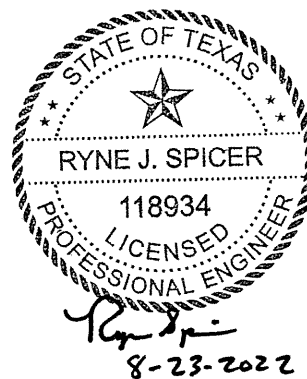
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### APPENDIX D-1-A

Quick Cover Information

### APPENDIX D-1-B

VERDac Landfill Cover Pellets Information



## 2 MATERIAL CHARACTERISTICS

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### 2.1 Description of ADC Materials

Contaminated soil materials that are not classified as Class 1 non-hazardous industrial solid waste and are authorized to be accepted at the Royal Oaks Landfill, may be applied as ADC.

The contaminated soil will be applied with a minimum thickness of 6 inches. Clean soil will be added to the contaminated soil if necessary to achieve the minimum thickness. Additionally, other approved ADC material may be used in conjunction with contaminated soil.

Quick Cover is produced by Tascon, Inc. Quick Cover is a blend of cellulose fiber mulch and a binding agent that forms a slurry when mixed with water. The mulch is manufactured from recycled fiber stock (mixed papers) and the binding agent is composed of guar gum powder and applied with a hydromulch machine. This ADC spray material will form a crust-like barrier after application. Additional information for Quick Cover is included in Appendix D-1-A.

VERDac Landfill Cover Pellets (VERDac) is a spray-applied mulch and mineral mortar slurry product manufactured by LSC Environmental Products, LLC. VERDac Landfill Cover Pellets ADC is a non-flammable blend of mulch and mineral binder providing a thin, non-toxic coating which has been demonstrated as effective for controlling odors, windblown waste, and vectors at numerous facilities.

### 2.2 Chemical Characteristics

Soil materials contaminated with petroleum, pesticides, and metals that are accepted at the site as special waste (in accordance with the site's permitted waste acceptance plan) and soil contaminated with Class 2 industrial waste may be used as ADC. Consistent with 30 TAC §330.165(d)(4) (A), contaminated soil used as ADC will not contain polychlorinated biphenyl wastes that are subject to the disposal requirements of 40 Code of Federal Regulations Part 761. Consistent with 30 TAC §330.165(d) (4)(3), the TPH of the petroleum contaminated soil must be equal to or below 1500 milligrams per kilogram. Soils contaminated with pesticides will be tested for TCLP pesticides and herbicides and TCLP metals (RCRA 8 metals). Soils contaminated with metals will be tested for TCLP metals (RCRA 8 metals). Other contaminated soils will be tested for process knowledge driven constituents of concern. Contaminated soils used as ADC will not contain constituents of concern exceeding the concentration totals in Table 1 of 30 TAC §335.521(a)(1) (i.e., soil classified as non-Class 1 waste), consistent with 30 TAC §330.165(d)(4). The contaminated soils chemical characteristics will be attached to the generator waste profile sheet that

accompanies the waste at the time of acceptance and will be maintained in the Site Operating Record.

The MSDS for Quick Cover is included in Appendix D-1-A. Quick Cover is not reactive, ignitable, or corrosive under the expected conditions (i.e., high temperature, intense sunlight).

VERDac is comprised of cellulose fiber, powdered clay, adhesives, and water conditioners. The chemical analysis of VERDac, as well as other pertinent characteristics, are included in Appendix D-1-B.

## **3 OPERATIONAL METHODS**

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### **3.1 Contaminated Soil**

Contaminated soils will be stockpiled near the working face or fill area and spread over the working face with a dozer or similar equipment to achieve a minimum thickness of 6 inches of well-compacted material. Additionally, clean soil will be added as necessary to ensure the appropriate thickness is applied.

Stormwater runoff to and runoff from the contaminated soil piles will be controlled by containment berms and/or diversion berms in accordance with Section 4.22 of the SOP, which references Attachment 15 (Leachate and Contaminated Water Plan), Section 2.3. The contaminated soil stockpiles will be located within the containment berms constructed around the working face. Stormwater that comes into contact with the contaminated soil in a stockpile will be considered contaminated water and managed consistent with the requirements for contaminated water in the facility's Leachate and Contaminated Water Plan (Attachment 15). The maximum size of the contaminated soil stockpile area will be 0.5 acres (maximum volume = 10,000 cy). The size of the contaminated soil stockpile area will be added to the working face area to determine the "Working Face and Daily Cover Area" (shown in Section 2.3 of Attachment 15) to calculate the "Approximate Containment Area" and dimensions.

Contaminated water will be contained at the working face as discussed in Attachment 15 of the permit. Contaminated water will be collected at the working face and removed using a vacuum truck no later than 7 days from the end of the rainfall event (also refer to Part IV, SOP, Section 4.19 for additional information regarding ponded water). The collected contaminated water will be transported via tanker trucks directly to a properly permitted privately owned off-site wastewater treatment facility or publicly owned treatment works (POTW) as discussed below.

### **3.2 Quick Cover**

Quick Cover will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment following the procedure listed below.

1. The operator will become familiar with this ADCOP and Quick Cover. Specifically, the mixing ratio and application rate for the spray-type ADC material. This ADCOP includes information on Quick Cover in Appendix D-1-A as well as the MSDS for this product; however, manufacturer's instructions included with the ADC material itself should be followed as well.

2. The operator will not operate the hydroseed machine until they have been trained by qualified personnel. Site personnel that are responsible for the application of ADC materials will receive training in the operation of the equipment, mixing procedures, and application methods.
3. The operator will mix the spray ADC according to the manufacturer's recommendation (1-50 pound bag per 100 gallons of water). Then, using the hydromulch machine, the operator will apply the ADC from at least two different directions to achieve a minimum thickness of 0.25 inches over the exposed waste at the working face. The operator will visually inspect the ADC to ensure that the minimum thickness is achieved and that no waste is left exposed.
4. The operator will not use the spray ADC around or near ignition sources.
5. The operator will be responsible for storing the spray ADC material in a dry location that is not susceptible to ponding water. The spray ADC material will be stored under a tarp, or equivalent, at all times to protect the material from moisture damage and direct sunlight. The operator will be responsible for inspecting the spray ADC material for moisture damage or other defects before each use. Any damaged or defective materials will not be allowed for use as ADC.
6. No more than 1,000 bags of spray ADC material will be stored at the site at any time. Additional spray ADC material will be ordered periodically to replenish the material used.

### **3.3 VERDac Landfill Cover Pellets**

VERDac ADC is a spray-applied mulch and mineral mortar slurry comprised of water and a combination of cellulose fiber, powdered clay, adhesives, and water conditioners. This ADC will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment following the procedures listed below:

1. The operator will become familiar with this ADCOP and VERDac. Specifically the mixing ratio and application rate for the spray-type ADC material. This ADCOP includes information on VERDac in Appendix D-1-B as well as the SDS; however, the manufacturer's instructions included with the ADC material itself should be followed as well.
2. The operator will mix the spray ADC according to the manufacturer's recommendations (50-pound bag to 80 gallons). Then using the hydromulch machine, the operator will apply the ADC from at least two different directions to achieve a minimum thickness of 0.25 inches over the exposed waste at the working face. The operator will visually inspect the ADC to ensure that the minimum thickness is achieved and that no waste is exposed.
3. The operator will not use the spray ADC around or near ignition sources.



4. The operator will be responsible for storing the spray ADC material in a location that is not susceptible to ponding water. The spray ADC material will be stored in the manufacturer's protective plastic wrapping, under a tarp, or equivalent, at all times to protect the material from moisture damage and direct sunlight. The operator will be responsible for inspecting the spray ADC material for moisture damage or other defects before each use. Any damaged or defective materials will not be allowed for use as ADC.
5. No more than 1,000 bags/bails of spray ADC material will be stored at the site at any time.
6. Stormwater that comes into contact with the VERDac ADC during use or storage will be treated as contaminated water and controlled in accordance with Section 4.21 of the Site Operating Plan (i.e., contained within the containment berms around the active area).

## 4 ADC MATERIAL PERFORMANCE AND INSPECTION PROCEDURES

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### 4.1 ADC Performance

Contaminated soil ADC has been successfully used at other MSW landfill sites in Texas to control vectors, fires, odors, and windblown litter and waste. Contaminated soil forms a barrier over waste and this surface serves as a barrier much like clean soil. Contaminated soil will control vectors and windblown litter by creating a physical barrier between the atmosphere and the waste. Contaminated soil also minimizes airflow between the active face and the atmosphere, which minimizes fire hazards and odor potential.

The Quick Cover spray-type ADC material included in this plan has been successfully used at other MSW landfill sites in Texas to control vectors, fires, odors, and windblown litter and waste. This type of ADC forms a crust-like barrier over the waste and this crust-like surface serves as a barrier much like the tarp ADC material. The spray-type ADC will control vectors and windblown waste by creating a physical barrier between the atmosphere and waste (e.g., the cohesive nature of the ADC material will prevent windblown waste and the crust-like barrier of Quick Cover has been proven to prevent vectors). The cohesive nature of the spray-type ADC also minimizes the airflow between the active face and the atmosphere, which minimizes the fire hazard and odor potential.

The VERDac ADC specified in this plan creates a thin, non-toxic barrier over the waste. VERDac ADC will control vectors, odor, and windblown waste, as well as minimize fire hazards by creating a physical barrier between the atmosphere and waste due to the cohesive nature of the ADC material.

### 4.2 Verification and Inspection Procedures

At the end of each working day, landfill personnel will inspect the working face to confirm that the minimum thickness of an approved ADC has been placed over the working face in accordance with this ADCOP. Landfill personnel will routinely assess the effectiveness of each ADC in controlling vectors, fires, odors, and windblown litter and waste. Daily application of ADC will be documented and maintained in the Site Operating Record.

In the event ADC does not control vectors, fires, odors, or windblown waste, the ADC application process will be re-evaluated to ensure this ADC material adequately covers the working face and serves its intended purpose. Any required changes to the ADC operational procedures will be authorized through a permit modification.

**APPENDIX D-1-B**

**VERDac LANDFILL COVER PELLETS INFORMATION**



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

VERDac Landfill Cover Pellets

Page 1 of 4

## 1 Identification

**Supplier** LSC Environmental Products, LLC  
2183 Pennsylvania Ave  
Apalachin, NY 13732  
Telephone: 607-625-3050  
Fax: 607-625-2688  
Web: www.lscenv.com

**Product Name** **VERDac Landfill Cover Pellets**  
Description: Green Dyed Cellulose Fiber from Shredded Wastepaper and Corn Fiber and Sodium Montmorillonite Clay with Additives  
CAS Number: N/A  
Recommended Use: Alternative Daily Cover and Hydroseeding.

## 2 Hazards Identification

Route of Entry: Eye Contact, Skin Contact, Inhalation  
Hazards: Eye: May cause mechanical irritation.  
Skin: May cause mild skin irritation.  
Ingestion: No known health effects.  
Inhalation: Acute: Short term exposure may cause mechanical irritation resulting in dry cough. May aggravate existing respiratory illness.  
Chronic: Repeated inhalation of respirable\* crystalline silica above exposure limits can cause lung disease, including silicosis and lung cancer.

## 3 Composition / Information on Ingredients

**Components in order of Volume:**  
Cellulose Fiber, Corn Fiber, Sodium Montmorillonite Clay\* (Cas # 1318-93-0), Proprietary ingredients and biodegradable green coloring.

\*Typical western SMC contains 1-6% crystalline silica as quartz CAS# 14808-60-7.

## 4 First-Aid Measures

Eye: Flush eyes and under eye lids with plenty of water until irritation ceases. Contact physician if irritation persists.  
Skin: Wash with soap and water until clean. Contact physician if irritation develops.  
Ingestion: None known.  
Inhalation: Move to area free from dust. If symptoms of irritation persist, contact physician.



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

## VERDac Landfill Cover Pellets

Page 2 of 4

Inhalation may aggravate existing respiratory illness.

### 5 Fire Fighting Measures

Flammability: Combustible product  
Auto-ignition Temp: 400-500 F  
Fire Extinguishing Media: Water, Carbon Dioxide, Sand.

### 6 Accidental Release Measures

Personal Precaution: Avoid breathing dust; wear respirator approved for silica bearing dust.  
Cleanup: Vacuum to avoid generating airborne dust. Avoid using water. Material becomes slippery when wet.

### 7 Handling and Storage

Handling: Use NIOSH/MSHA respirators approved for silica bearing dust when airborne SMC dust levels exceed PEL/TLVs. Clean up spills promptly to avoid making dust. Storage area floors may become slippery if wetted.  
Storage: Store in a dry place. Keep away from ignition sources.

### 8 Exposure Controls / Personal Protection

Exposure Guidelines (Inhalation):

Component	OSHA PEL (8 hr TWA)	ACGIH TVL
Crystalline Silica as Quartz	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>
Wood Dust	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Particles Not Otherwise Regulated		
Total Dust	15 mg/m <sup>3</sup>	N/A
Respirable Dust	5 mg/m <sup>3</sup>	N/A

Engineering Controls: None required for outdoor mixing and application. Use local ventilation to maintain PELs/TLVs if handling indoors.

Personal Protective Equipment:  
Eye and Face Protection:

Wear safety glasses or goggles during loading and application to protect from dust, splashing, and spray mist.

Skin Protection:

Wear gloves and overalls to protect skin and clothing from contact with product. Personal hygiene measures, such as washing hands and face after working with materials, are recommended.



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

## VERDac Landfill Cover Pellets

Page 3 of 4

Respiratory Protection:

When handling generates dust levels above exposure limits, use respirators approved by NIOSH/MSHA for silica bearing dust.

### 9 Physical and Chemical Properties

Appearance:	Green Pellets
Odor:	N/A
Physical State:	Granular Mixture of Cellulose Fiber, Corn Fiber, Sodium Montmorillonite Clay, Proprietary Ingredients, Dye
pH:	5.5-7.0
Specific Density:	20-35#/s/ft <sup>3</sup> (approximate)
Specific Gravity:	N/A
Solubility in Water:	<2%
Vapor Pressure (mm Hg):	N/A

### 10 Stability and Reactivity

Stability:	Stable
Conditions to Avoid:	Avoid open flame. Store in dry areas.
Materials to Avoid:	N/A
Hazardous Polymerization:	No.

### 11 Toxicological Information

- Carcinogenicity:
- Sodium Montmorillonite Clay is not listed by ACGIH, IARC, NTP, or OSHA.
  - IARC, 1997, concludes that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica from occupational sources (IARC Class 1), that carcinogenicity was not detected in all industrial circumstances studied and that carcinogenicity may depend on characteristics of the crystalline silica or on external factors affecting its biological activity. NTP classifies respirable crystalline silica as "known to be a human carcinogen" (NTP 9th Report on Carcinogens - 2000). ACGIH classifies crystalline silica quartz as a suspected human carcinogen (A2).

### 12 Ecological Information

No information available.

### 13 Disposal Considerations

Bury in licensed landfill according to local, state, and federal regulations.



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

VERDac Landfill Cover Pellets

Page 4 of 4

## 14 Transportation Information

US DOT: Non-regulated

## 15 Regulatory Information

None of the components in this product are known to be regulated by national or international regulatory bodies.

## 16 Other Information

SDS Status: Revised from MSDS format in 2015 to comply with GHS requirements.

All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances.

No warranty or guarantee, expressed or implied, is made by LSC Environmental Products, LLC as to this information or as to the safety, toxicity, or effect of the use of this product.

ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A

PERMIT MODIFICATION

APPENDIX D-2  
ALTERNATIVE DAILY COVER APPROVAL LETTERS

Prepared for

Pine Hill Farms Landfill TX, LP

October 2015

Revised November 2017

Revised August 2022



Prepared by

Weaver Consultants Group, LLC  
TBPE Registration No. F-3727  
6420 Southwest Blvd., Suite 206  
Fort Worth, Texas 76109  
817-735-9770

WCG Project No. 0120-076-11-102



**ATTACHMENT 2**  
**SOP REPLACEMENT PAGES (CLEAN COPY)**

**ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A**

**PERMIT MODIFICATION**

**SITE OPERATING PLAN**

Prepared for

Pine Hill Farms Landfill TX, LP

November 2006

Revised June 2007

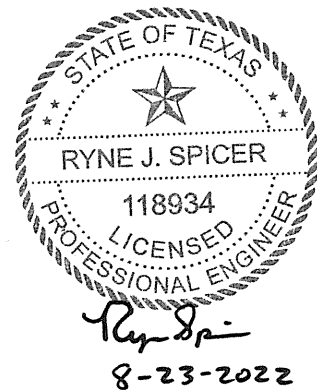
Revised June 2008

Revised October 2015

Revised May 2016

Revised September 2017

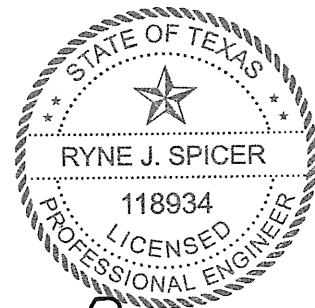
Revised August 2022



Prepared by

**Weaver Consultants Group, LLC**  
TBPE Registration No. F-3727  
6420 Southwest Boulevard, Suite 206  
Fort Worth, Texas 76109  
817-735-9770

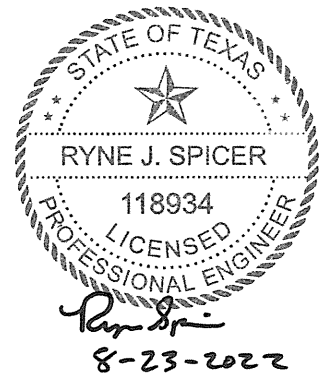
WCG Project No. 0120-076-11-102



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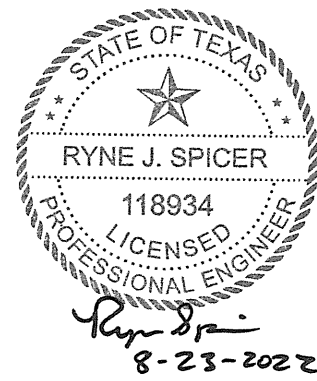
*Ryne Spicer* 8-23-2022

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**ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A**

**PERMIT MODIFICATION**

**SITE OPERATING PLAN  
APPENDIX D  
ALTERNATE DAILY COVER OPERATING  
PLAN INFORMATION**

Prepared for

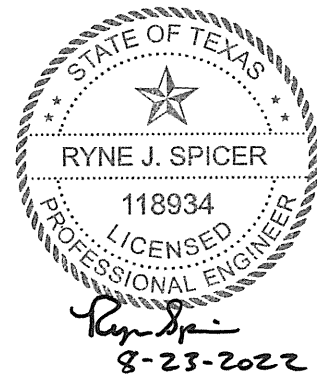
Pine Hill Farms Landfill TX, LP

July 2006

Revised October 2015

Revised November 2017

Revised August 2022



Prepared by

**Weaver Consultants Group, LLC**  
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817-735-9770

WCG Project No. 0120-076-11-102

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**ADC SUMMARY**

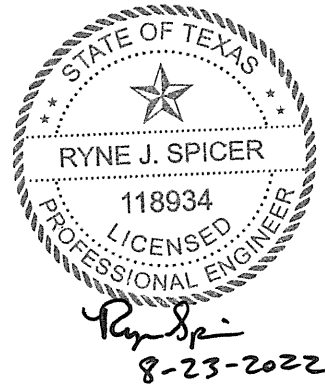
**D-1**

**APPENDIX D-1**

Alternative Daily Cover Operating Plan Information

**APPENDIX D-2**

Alternative Daily Cover Approval Letters



## ADC SUMMARY

---

The site is currently approved to use Bio-cover, Enviro-cover, Enviro-Plus, Enviro-Gro, and Quick Cover spray-on type ADC materials, contaminated soils ADC, and VERDac Landfill Cover Pellets. Bio-cover, Enviro-cover, Enviro-Plus, and Enviro-Gro spray-type ADC materials were approved on February 20, 2002. Contaminated soil ADC was approved on March 24, 2016. The approval letter for Bio-Cover, Enviro-Cover, Enviro-Gro, contaminated soils, and VERDac are included in Appendix D-2. The ADCOP for Quick Cover, contaminated soils, and VERDac Landfill Cover Pellets are provided on the following pages.

Consistent with §330.165(d), a temporary authorization will be submitted for any additional future ADC materials. Consistent with 30 TAC 330.165(d) (2), after a Temporary Authorization to use a new ADC material is approved, a status report for the new ADC material will be submitted on a two-month basis to the TCEQ describing the effectiveness of the alternative materials, any problems that may have occurred, and corrective actions required as a result of such problems. The trial period will be for two-180 day periods with an extension request to be submitted near the end of the first 180 day period. If no unresolved problems occur within the trial period, a permit modification per §305.70(k)(1) will be submitted to the TCEQ to obtain permanent approval of the ADC material.



**ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A**

**PERMIT MODIFICATION**

**APPENDIX D-1  
ALTERNATIVE DAILY COVER OPERATING PLAN**

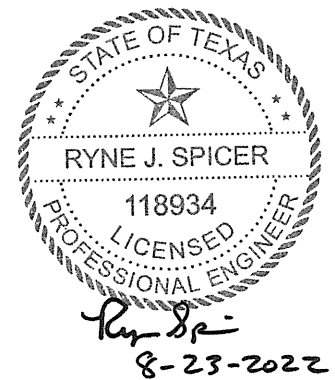
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**APPENDIX D-1-A**  
Quick Cover Information

**APPENDIX D-1-B**  
VERDac Landfill Cover Pellets Information



## 2 MATERIAL CHARACTERISTICS

---

### 2.1 Description of ADC Materials

Contaminated soil materials that are not classified as Class 1 non-hazardous industrial solid waste and are authorized to be accepted at the Royal Oaks Landfill, may be applied as ADC.

The contaminated soil will be applied with a minimum thickness of 6 inches. Clean soil will be added to the contaminated soil if necessary to achieve the minimum thickness. Additionally, other approved ADC material may be used in conjunction with contaminated soil.

Quick Cover is produced by Tascon, Inc. Quick Cover is a blend of cellulose fiber mulch and a binding agent that forms a slurry when mixed with water. The mulch is manufactured from recycled fiber stock (mixed papers) and the binding agent is composed of guar gum powder and applied with a hydromulch machine. This ADC spray material will form a crust-like barrier after application. Additional information for Quick Cover is included in Appendix D-1-A.

VERDac Landfill Cover Pellets (VERDac) is a spray-applied mulch and mineral mortar slurry product manufactured by LSC Environmental Products, LLC. VERDac Landfill Cover Pellets ADC is a non-flammable blend of mulch and mineral binder providing a thin, non-toxic coating which has been demonstrated as effective for controlling odors, windblown waste, and vectors at numerous facilities.

### 2.2 Chemical Characteristics

Soil materials contaminated with petroleum, pesticides, and metals that are accepted at the site as special waste (in accordance with the site's permitted waste acceptance plan) and soil contaminated with Class 2 industrial waste may be used as ADC. Consistent with 30 TAC §330.165(d)(4) (A), contaminated soil used as ADC will not contain polychlorinated biphenyl wastes that are subject to the disposal requirements of 40 Code of Federal Regulations Part 761. Consistent with 30 TAC §330.165(d) (4)(3), the TPH of the petroleum contaminated soil must be equal to or below 1500 milligrams per kilogram. Soils contaminated with pesticides will be tested for TCLP pesticides and herbicides and TCLP metals (RCRA 8 metals). Soils contaminated with metals will be tested for TCLP metals (RCRA 8 metals). Other contaminated soils will be tested for process knowledge driven constituents of concern. Contaminated soils used as ADC will not contain constituents of concern exceeding the concentration totals in Table 1 of 30 TAC §335.521(a)(1) (i.e., soil classified as non-Class 1 waste), consistent with 30 TAC §330.165(d)(4). The contaminated soils chemical characteristics will be attached to the generator waste profile sheet that

accompanies the waste at the time of acceptance and will be maintained in the Site Operating Record.

The MSDS for Quick Cover is included in Appendix D-1-A. Quick Cover is not reactive, ignitable, or corrosive under the expected conditions (i.e., high temperature, intense sunlight).

VERDac is comprised of cellulose fiber, powdered clay, adhesives, and water conditioners. The chemical analysis of VERDac, as well as other pertinent characteristics, are included in Appendix D-1-B.

## 3 OPERATIONAL METHODS

---

### 3.1 Contaminated Soil

Contaminated soils will be stockpiled near the working face or fill area and spread over the working face with a dozer or similar equipment to achieve a minimum thickness of 6 inches of well-compacted material. Additionally, clean soil will be added as necessary to ensure the appropriate thickness is applied.

Stormwater runoff to and runoff from the contaminated soil piles will be controlled by containment berms and/or diversion berms in accordance with Section 4.22 of the SOP, which references Attachment 15 (Leachate and Contaminated Water Plan), Section 2.3. The contaminated soil stockpiles will be located within the containment berms constructed around the working face. Stormwater that comes into contact with the contaminated soil in a stockpile will be considered contaminated water and managed consistent with the requirements for contaminated water in the facility's Leachate and Contaminated Water Plan (Attachment 15). The maximum size of the contaminated soil stockpile area will be 0.5 acres (maximum volume = 10,000 cy). The size of the contaminated soil stockpile area will be added to the working face area to determine the "Working Face and Daily Cover Area" (shown in Section 2.3 of Attachment 15) to calculate the "Approximate Containment Area" and dimensions.

Contaminated water will be contained at the working face as discussed in Attachment 15 of the permit. Contaminated water will be collected at the working face and removed using a vacuum truck no later than 7 days from the end of the rainfall event (also refer to Part IV, SOP, Section 4.19 for additional information regarding ponded water). The collected contaminated water will be transported via tanker trucks directly to a properly permitted privately owned off-site wastewater treatment facility or publicly owned treatment works (POTW) as discussed below.

### 3.2 Quick Cover

Quick Cover will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment following the procedure listed below.

1. The operator will become familiar with this ADCOP and Quick Cover. Specifically, the mixing ratio and application rate for the spray-type ADC material. This ADCOP includes information on Quick Cover in Appendix D-1-A as well as the MSDS for this product; however, manufacturer's instructions included with the ADC material itself should be followed as well.

2. The operator will not operate the hydroseed machine until they have been trained by qualified personnel. Site personnel that are responsible for the application of ADC materials will receive training in the operation of the equipment, mixing procedures, and application methods.
3. The operator will mix the spray ADC according to the manufacturer's recommendation (1-50 pound bag per 100 gallons of water). Then, using the hydromulch machine, the operator will apply the ADC from at least two different directions to achieve a minimum thickness of 0.25 inches over the exposed waste at the working face. The operator will visually inspect the ADC to ensure that the minimum thickness is achieved and that no waste is left exposed.
4. The operator will not use the spray ADC around or near ignition sources.
5. The operator will be responsible for storing the spray ADC material in a dry location that is not susceptible to ponding water. The spray ADC material will be stored under a tarp, or equivalent, at all times to protect the material from moisture damage and direct sunlight. The operator will be responsible for inspecting the spray ADC material for moisture damage or other defects before each use. Any damaged or defective materials will not be allowed for use as ADC.
6. No more than 1,000 bags of spray ADC material will be stored at the site at any time. Additional spray ADC material will be ordered periodically to replenish the material used.

### **3.3 VERDac Landfill Cover Pellets**

VERDac ADC is a spray-applied mulch and mineral mortar slurry comprised of water and a combination of cellulose fiber, powdered clay, adhesives, and water conditioners. This ADC will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment following the procedures listed below:

1. The operator will become familiar with this ADCOP and VERDac. Specifically the mixing ratio and application rate for the spray-type ADC material. This ADCOP includes information on VERDac in Appendix D-1-B as well as the SDS; however, the manufacturer's instructions included with the ADC material itself should be followed as well.
2. The operator will mix the spray ADC according to the manufacturer's recommendations (50-pound bag to 80 gallons). Then using the hydromulch machine, the operator will apply the ADC from at least two different directions to achieve a minimum thickness of 0.25 inches over the exposed waste at the working face. The operator will visually inspect the ADC to ensure that the minimum thickness is achieved and that no waste is exposed.
3. The operator will not use the spray ADC around or near ignition sources.

4. The operator will be responsible for storing the spray ADC material in a location that is not susceptible to ponding water. The spray ADC material will be stored in the manufacturer's protective plastic wrapping, under a tarp, or equivalent, at all times to protect the material from moisture damage and direct sunlight. The operator will be responsible for inspecting the spray ADC material for moisture damage or other defects before each use. Any damaged or defective materials will not be allowed for use as ADC.
5. No more than 1,000 bags/bails of spray ADC material will be stored at the site at any time.
6. Stormwater that comes into contact with the VERDac ADC during use or storage will be treated as contaminated water and controlled in accordance with Section 4.21 of the Site Operating Plan (i.e., contained within the containment berms around the active area).

## **4 ADC MATERIAL PERFORMANCE AND INSPECTION PROCEDURES**

---

### **4.1 ADC Performance**

Contaminated soil ADC has been successfully used at other MSW landfill sites in Texas to control vectors, fires, odors, and windblown litter and waste. Contaminated soil forms a barrier over waste and this surface serves as a barrier much like clean soil. Contaminated soil will control vectors and windblown litter by creating a physical barrier between the atmosphere and the waste. Contaminated soil also minimizes airflow between the active face and the atmosphere, which minimizes fire hazards and odor potential.

The Quick Cover spray-type ADC material included in this plan has been successfully used at other MSW landfill sites in Texas to control vectors, fires, odors, and windblown litter and waste. This type of ADC forms a crust-like barrier over the waste and this crust-like surface serves as a barrier much like the tarp ADC material. The spray-type ADC will control vectors and windblown waste by creating a physical barrier between the atmosphere and waste (e.g., the cohesive nature of the ADC material will prevent windblown waste and the crust-like barrier of Quick Cover has been proven to prevent vectors). The cohesive nature of the spray-type ADC also minimizes the airflow between the active face and the atmosphere, which minimizes the fire hazard and odor potential.

The VERDac ADC specified in this plan creates a thin, non-toxic barrier over the waste. VERDac ADC will control vectors, odor, and windblown waste, as well as minimize fire hazards by creating a physical barrier between the atmosphere and waste due to the cohesive nature of the ADC material.

### **4.2 Verification and Inspection Procedures**

At the end of each working day, landfill personnel will inspect the working face to confirm that the minimum thickness of an approved ADC has been placed over the working face in accordance with this ADCOP. Landfill personnel will routinely assess the effectiveness of each ADC in controlling vectors, fires, odors, and windblown litter and waste. Daily application of ADC will be documented and maintained in the Site Operating Record.

In the event ADC does not control vectors, fires, odors, or windblown waste, the ADC application process will be re-evaluated to ensure this ADC material adequately covers the working face and serves its intended purpose. Any required changes to the ADC operational procedures will be authorized through a permit modification.



**APPENDIX D-1-B**

**VERDac LANDFILL COVER PELLETS INFORMATION**



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

**VERDac Landfill Cover Pellets**

Page 1 of 4

## 1 Identification

**Supplier** LSC Environmental Products, LLC  
2183 Pennsylvania Ave  
Apalachin, NY 13732  
Telephone: 607-625-3050  
Fax: 607-625-2688  
Web: www.lscenv.com

**Product Name** **VERDac Landfill Cover Pellets**  
Description: Green Dyed Cellulose Fiber from Shredded Wastepaper and Corn Fiber and Sodium Montmorillonite Clay with Additives  
CAS Number: N/A  
Recommended Use: Alternative Daily Cover and Hydroseeding.

## 2 Hazards Identification

Route of Entry: Eye Contact, Skin Contact, Inhalation  
Hazards: Eye: May cause mechanical irritation.  
Skin: May cause mild skin irritation.  
Ingestion: No known health effects.  
Inhalation: Acute: Short term exposure may cause mechanical irritation resulting in dry cough. May aggravate existing respiratory illness.  
Chronic: Repeated inhalation of respirable\* crystalline silica above exposure limits can cause lung disease, including silicosis and lung cancer.

## 3 Composition / Information on Ingredients

**Components in order of Volume:**  
Cellulose Fiber, Corn Fiber, Sodium Montmorillonite Clay\* (Cas # 1318-93-0), Proprietary ingredients and biodegradable green coloring.

\*Typical western SMC contains 1-6% crystalline silica as quartz CAS# 14808-60-7.

## 4 First-Aid Measures

Eye: Flush eyes and under eye lids with plenty of water until irritation ceases. Contact physician if irritation persists.  
Skin: Wash with soap and water until clean. Contact physician if irritation develops.  
Ingestion: None known.  
Inhalation: Move to area free from dust. If symptoms of irritation persist, contact physician.



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

## VERDac Landfill Cover Pellets

Page 2 of 4

Inhalation may aggravate existing respiratory illness.

### 5 Fire Fighting Measures

Flammability: Combustible product  
Auto-ignition Temp: 400-500 F  
Fire Extinguishing Media: Water, Carbon Dioxide, Sand.

### 6 Accidental Release Measures

Personal Precaution: Avoid breathing dust; wear respirator approved for silica bearing dust.  
Cleanup: Vacuum to avoid generating airborne dust. Avoid using water. Material becomes slippery when wet.

### 7 Handling and Storage

Handling: Use NIOSH/MSHA respirators approved for silica bearing dust when airborne SMC dust levels exceed PEL/TLVs. Clean up spills promptly to avoid making dust. Storage area floors may become slippery if wetted.  
Storage: Store in a dry place. Keep away from ignition sources.

### 8 Exposure Controls / Personal Protection

Exposure Guidelines (Inhalation):

Component	OSHA PEL (8 hr TWA)	ACGIH TVL
Crystalline Silica as Quartz	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>
Wood Dust	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Particles Not Otherwise Regulated		
Total Dust	15 mg/m <sup>3</sup>	N/A
Respirable Dust	5 mg/m <sup>3</sup>	N/A

Engineering Controls: None required for outdoor mixing and application. Use local ventilation to maintain PELs/TLVs if handling indoors.

Personal Protective Equipment:

Eye and Face Protection: Wear safety glasses or goggles during loading and application to protect from dust, splashing, and spray mist.

Skin Protection: Wear gloves and overalls to protect skin and clothing from contact with product. Personal hygiene measures, such as washing hands and face after working with materials, are recommended.



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

## VERDac Landfill Cover Pellets

Page 3 of 4

Respiratory Protection: When handling generates dust levels above exposure limits, use respirators approved by NIOSH/MSHA for silica bearing dust.

### 9 Physical and Chemical Properties

Appearance:	Green Pellets
Odor:	N/A
Physical State:	Granular Mixture of Cellulose Fiber, Corn Fiber, Sodium Montmorillonite Clay, Proprietary Ingredients, Dye
pH:	5.5-7.0
Specific Density:	20-35# s/ft <sup>3</sup> (approximate)
Specific Gravity:	N/A
Solubility in Water:	<2%
Vapor Pressure (mm Hg):	N/A

### 10 Stability and Reactivity

Stability:	Stable
Conditions to Avoid:	Avoid open flame. Store in dry areas.
Materials to Avoid:	N/A
Hazardous Polymerization:	No.

### 11 Toxicological Information

- Carcinogenicity:
- Sodium Montmorillonite Clay is not listed by ACGIH, IARC, NTP, or OSHA.
  - IARC, 1997, concludes that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica from occupational sources (IARC Class 1), that carcinogenicity was not detected in all industrial circumstances studied and that carcinogenicity may depend on characteristics of the crystalline silica or on external factors affecting its biological activity. NTP classifies respirable crystalline silica as "known to be a human carcinogen" (NTP 9th Report on Carcinogens - 2000). ACGIH classifies crystalline silica quartz as a suspected human carcinogen (A2).

### 12 Ecological Information

No information available.

### 13 Disposal Considerations

Bury in licensed landfill according to local, state, and federal regulations.



# GHS Safety Data Sheet

# SDS

LSC Environmental Products, LLC  
Issue Date: July 10, 2020

**VERDac Landfill Cover Pellets**

Page 4 of 4

## 14 Transportation Information

US DOT: Non-regulated

## 15 Regulatory Information

None of the components in this product are known to be regulated by national or international regulatory bodies.

## 16 Other Information

SDS Status: Revised from MSDS format in 2015 to comply with GHS requirements.

All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances.

No warranty or guarantee, expressed or implied, is made by LSC Environmental Products, LLC as to this information or as to the safety, toxicity, or effect of the use of this product.

**ROYAL OAKS LANDFILL  
CHEROKEE COUNTY, TEXAS  
TCEQ PERMIT NO. MSW-1614A**

**PERMIT MODIFICATION**

**APPENDIX D-2  
ALTERNATIVE DAILY COVER APPROVAL LETTERS**

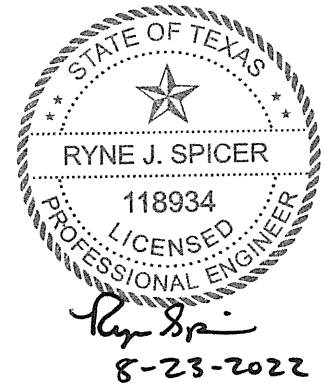
Prepared for

Pine Hill Farms Landfill TX, LP

October 2015

Revised November 2017

Revised August 2022



Prepared by

Weaver Consultants Group, LLC  
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WCG Project No. 0120-076-11-102

**ATTACHMENT 3**

**VERDAC TEMPORARY AUTHORIZATION APPROVAL LETTERS**

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Toby Baker, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

July 29, 2021

Mr. Austin Sparks  
Environmental Manager  
Pine Hill Farms Landfill TX, LP  
3031 FM 3417  
Mount Pleasant Texas, 75456

Subject: Royal Oaks Landfill - Cherokee County  
Municipal Solid Waste (MSW) - Permit No. 1614A  
Temporary Authorization - Approved  
Tracking No. 26190177; RN101927010/CN600129530

Dear Mr. Sparks:

We have reviewed the request dated June 15, 2021, for a temporary authorization for the above-referenced facility to use VERDac Landfill Cover Pellets spray-type cover on a trial basis to evaluate its effectiveness as an alternate daily cover (ADC) material(s). In accordance with Title 30 Texas Administrative Code, §305.62(k), our evaluation indicates that the information presented is sufficient to allow the requested temporary authorization with the conditions established in the enclosed issuance document.

The enclosed copy of the referenced temporary authorization should be maintained in the facility's files. The documentation prepared and submitted to support the temporary authorization request shall be considered as requirements of the permit.

If you have any questions concerning this matter, please contact Mr. Adam Schnuriger at (512) 239-0526, [Adam.Schnuriger@tceq.texas.gov](mailto:Adam.Schnuriger@tceq.texas.gov) or in writing at the address on our letterhead (please include mail code MC 124 on the first line).

This action is taken under authority delegated by the executive director of the Texas Commission on Environmental Quality.

Sincerely,

A handwritten signature in cursive script, appearing to read "cgoodin".

Chance Goodin, Manager  
Municipal Solid Waste Permits Section  
Waste Permits Division

CG/AS/tw

cc: Chad Ellinger, P.E., Civil & Environmental Consultants, Inc., Houston

Enclosure



# Texas Commission on Environmental Quality



## **Temporary Authorization Municipal Solid Waste Permit No. 1614A Pine Hill Farms Landfill TX, LP – Royal Oaks Landfill**

Municipal Solid Waste (MSW) Permit No. 1614A is hereby authorized as follows:

Description of Temporary Authorization:

Royal Oaks Landfill, MSW Permit No. 1614A is hereby authorized to use the following material(s) on a trial basis to evaluate its effectiveness as an alternative daily cover (ADC), subject to the following conditions.

1. The permittee shall contact the Texas Commission on Environmental Quality Region 5 office at least ten days prior to the use of ADC materials and on a regular basis thereafter, to allow inspection and monitoring of the performance of the ADC material(s) during this trial period.
2. Types of ADC material(s) to be used during this trial period shall be limited to the following:
  - VERDac Landfill Cover Pellets by LSC Environmental Products, LLC; Green dyed cellulose fiber from shredded wastepaper and corn fiber and Sodium Montmorillonite.
3. The ADC material will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment and must be prepared as recommended by the manufacturer to achieve an overall thickness of not less than 0.125 inches over the exposed waste.
4. Storm water runoff from areas that have been covered with contaminated soil ADC and from contaminated soil ADC stockpiles shall be controlled and managed as contaminated water.
5. The use of ADC materials is limited to a 24-hour period after which either waste or daily cover as defined in Title 30 Texas Administrative Code (30 TAC), §330.165(a) must be placed.
6. The trial period shall begin 15 days after the date this temporary authorization is issued, unless an alternate start date was requested in writing by the permittee and approved as part of this temporary authorization.
7. The ADC trial period should include all seasons of the year; therefore, as the facility nears the end of the initial trial period, an extension may be requested. Each ADC

material listed in this temporary authorization may be used for not more than 180 days following initiation of the trial period, and for an additional trial period not to exceed 180 days upon approval of a one-time extension. This temporary authorization for the first trial period will expire 180 days after the initiation of the trial period.

8. If after a one year trial period, the ADC material(s) prove(s) to be effective as daily cover in accordance with 30 TAC §330.165(d), the facility may request to incorporate the material(s) as (an) option(s) in the permit by an amendment in accordance with 30 TAC §305.62, or a modification with notice in accordance with 30 TAC §305.70(k)(1).
9. In accordance with 30 TAC §330.165(d)(2), written status reports for each ADC material shall be submitted on a two-month basis to the executive director during the trial period. The reports shall include usage logs listing the days the ADC was used at the site, and shall contain information describing the effectiveness of the ADC material, any problems that may have occurred, and corrective action required as a result of such problems. If an ADC material is not utilized during each two-month period, the status report should also discuss this fact.

The details of this temporary authorization are contained in the request dated June 15, 2021 and shall be considered as requirements of the permit.

*Approved, Issued and Effective* in accordance with 30 TAC §305.62(k), for 180 days.

Issued Date: July 29, 2021



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For the Commission

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Toby Baker, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

March 8, 2022

Mr. Austin Sparks, P.E.  
Environmental Manager  
Pine Hill Farms Landfill TX, LP  
608 CR 4102  
Jacksonville, Texas 75766

Subject: Royal Oaks Landfill - Cherokee County  
Municipal Solid Waste (MSW) - Permit No. 1614A  
Temporary Authorization - Approved  
Tracking No. 27334602; RN101927010/CN600129530

Dear Mr. Sparks:

We have reviewed the request dated February 2, 2022, for reissuance of a temporary authorization for the above-referenced facility to use VERDac Landfill Cover Pellets (VERDac) on a trial basis to evaluate their effectiveness as alternative daily cover (ADC) materials. In accordance with Title 30 Texas Administrative Code, §305.62(k), our evaluation indicates that the information presented is sufficient to allow the requested temporary authorization with the conditions established in the enclosed issuance document.

The enclosed copy of the referenced temporary authorization should be maintained in the facility's files. The documentation prepared and submitted to support the temporary authorization request shall be considered as requirements of the permit.

If you have any questions concerning this matter, please contact Mr. Frank Zeng at (512) 239-1132, or in writing at the address on our letterhead (please include mail code MC 124 on the first line).

This action is taken under authority delegated by the executive director of the Texas Commission on Environmental Quality.

Sincerely,

A handwritten signature in cursive script that reads "cgoodin".

Chance Goodin, Manager  
Municipal Solid Waste Permits Section  
Waste Permits Division

CG/FZ/tw

Enclosure

# Texas Commission on Environmental Quality



## Temporary Authorization Municipal Solid Waste Permit No. 1614A Pine Hill Farms Landfill TX, LP – Royal Oaks Landfill

Municipal Solid Waste (MSW) Permit No. 1614A is hereby authorized as follows:

Description of Temporary Authorization:

Royal Oaks Landfill, MSW 1614A is hereby authorized to use the following materials on an extended trial basis to evaluate their effectiveness as an alternative daily cover (ADC), subject to the following conditions.

1. The permittee shall contact the Texas Commission on Environmental Quality Region 5 office at least ten days prior to the use of ADC materials and on a regular basis thereafter, to allow inspection and monitoring of the performance of the ADC materials during this trial period.
2. Types of ADC materials to be used during this extended trial period shall be limited to the following:
  - VERDac Landfill Cover Pellets by LSC Environmental Products, LLC; Green dyed cellulose fiber from shredded wastepaper and corn fiber and Sodium Montmorillonite.
3. The ADC materials will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment and must be prepared as recommended by the manufacturer to achieve an overall thickness of not less than 0.125 inches over the exposed waste.
4. Storm water runoff from areas that have been covered with contaminated soil ADC and from contaminated soil ADC stockpiles shall be controlled and managed as contaminated water.
5. The use of ADC materials is limited to a 24-hour period after which either waste or daily cover as defined in Title 30 Texas Administrative Code (30 TAC), §330.165(a) must be placed.
6. If after this trial period, the ADC materials prove to be effective as daily cover in accordance with 30 TAC §330.165(d), the facility may request to incorporate the materials as an option in the permit by an amendment in accordance with 30 TAC §305.62, or a modification with notice in accordance with 30 TAC §305.70(k)(1).

7. In accordance with 30 TAC §330.165(d)(2), written status reports for each ADC material shall be submitted on a two-month basis to the executive director during the trial period. The reports shall include usage logs listing the days the ADC was used at the site; and shall contain information describing the effectiveness of the ADC material, any problems that may have occurred, and corrective action required as a result of such problems. If an ADC material is not utilized during each two-month period, the status report should also discuss this fact.

The details of this temporary authorization are contained in the original request dated June 15, 2021 and the extension request dated February 2, 2022 and shall be considered as requirements of the permit.

*Approved, Issued and Effective* in accordance with 30 TAC §305.62(k), for 180 days starting on the expiration of the original Temporary Authorization trial period.

Issued Date: March 8, 2022



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For the Commission

**ATTACHMENT 4**  
**TCEQ-20650 FORM**



# Texas Commission on Environmental Quality

## Application Form for Municipal Solid Waste Permit or Registration Modification or Temporary Authorization

### Application Tracking Information

Facility Name: Royal Oaks Landfill  
Permittee or Registrant Name: Pine Hill Farms Landfill TX, LP  
MSW Authorization Number: 1614A  
Initial Submission Date: 08/2022  
Revision Date: \_\_\_\_\_

Instructions for completing this form are provided in [form TCEQ-20650-instr<sup>1</sup>](#). If you have questions, contact the Municipal Solid Waste Permits Section by email to [mswper@tceq.texas.gov](mailto:mswper@tceq.texas.gov), or by phone at 512-239-2335.

### Application Data

#### 1. Submission Type

Initial Submission       Notice of Deficiency (NOD) Response

#### 2. Authorization Type

Permit       Registration

#### 3. Application Type

Modification with Public Notice       Modification without Public Notice  
 Temporary Authorization (TA)       Modification for Name Change or Transfer

#### 4. Application Fee

##### Amount

The application fee for a modification or temporary authorization is \$150.

##### Payment Method

Check  
 Online through ePay portal [www3.tceq.texas.gov/epay/](http://www3.tceq.texas.gov/epay/)

If paid online, enter ePay Trace Number: 582EA000502982

<sup>1</sup> [www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20650-instr.pdf](http://www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20650-instr.pdf)

### 5. Application URL

For modifications that require notice (other than those for arid exempt landfills), provide the URL address of a publicly accessible internet web site where the application and all revisions to the application will be posted:

www.ftwweaverboos.com

### 6. Party Responsible for Mailing Notice

For modifications that require notice, indicate who will be responsible for mailing notice:

Applicant  Agent in Service  Consultant

Contact Name: Ryne Spicer, P.E.

Title: Project Director

Email Address: rspicer@wcgrp.com

### 7. Confidential Documents

Does the application contain confidential documents?

Yes  No

If "Yes", reference the confidential documents in the application, but submit the confidential documents as an attachment in a separate binder marked "CONFIDENTIAL."

### 8. Facility General Information

Facility Name: Royal Oaks Landfill

Contact Name: Duane Weatherford Title: Operations Manager

MSW Authorization Number (if existing): 1614A

Regulated Entity Reference Number: **RN** 101927010

Physical or Street Address: 608 CR 4102

City: Jacksonville County: Cherokee State: TX Zip Code: 75766

Phone Number: 903-570-5126

Latitude (Degrees, Minutes Seconds): 32° 00' 05"

Longitude (Degrees, Minutes Seconds): 95° 16' 03"

### 9. Facility Types

Type I  Type IV  Type V

Type IAE  Type IVAE  Type VI



## 10. Description of the Revisions to the Facility

Provide a brief description of revisions to permit or registration conditions and supporting documents referred to by the permit or registration, and a reference to the specific provisions under which the modification or temporary authorization application is being made. Also, provide an explanation of why the modification or temporary authorization is needed:

The purpose of this permit modification is to request the use of VERDac Spray-Type Alternative Daily Cover (ADC) at the Royal Oaks Landfill on a permanent basis in accordance with 30 TAC §305.70(k)(1).

## 11. Facility Contact Information

### Site Operator (Permittee or Registrant)

Name: Pine Hill Farms Landfill TX, LP  
Customer Reference Number: **CN** 600129530  
Contact Name: Austin Sparks Title: Environmental Manager  
Mailing Address: 12920 FM 2767  
City: Tyler County: Smith State: TX Zip Code: 75708  
Phone Number: 903-539-7986  
Email Address: asparks3@republicservices.com  
Texas Secretary of State (SOS) Filing Number: 0010372711

### Operator (if different from Site Operator)

Name: Same as Site Operator  
Customer Reference Number: **CN** \_\_\_\_\_  
Contact Name: \_\_\_\_\_ Title: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_  
Texas Secretary of State (SOS) Filing Number: \_\_\_\_\_

**Consultant (if applicable)**

Firm Name: Weaver Consultants Group, LLC  
Consultant Name: Ryne Spicer, P.E.  
Texas Board of Professional Engineers Firm Registration Number: F-3727  
Contact Name: Ryne Spicer, P.E. Title: Project Director  
Mailing Address: 6420 Southwest Blvd., Suite 206  
City: Fort Worth County: Tarrant State: TX Zip Code: 76109  
Phone Number: 817-735-9770  
Email Address: rspicer@wcgrp.com

**Agent in Service (required for out-of-state applicants)**

Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ County: \_\_\_\_\_ State: TX Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_

**12. Ownership Status of the Facility**

Is this a modification that changes the legal description, the property owner, or the Site Operator (Permittee or Registrant)?

Yes  No

If the answer is "No", skip this section.

Does the Site Operator (Permittee or Registrant) own all the facility units and all the facility property?

Yes  No

If "No", provide the following information for other owners.

Owner Name: City of Jacksonville  
Mailing Address: P.O. Box 1390  
City: Jacksonville County: Cherokee State: TX Zip Code: 75766  
Phone Number: 903-586-3510  
Email Address: hr@jacksonvilletx.org

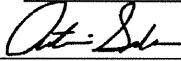
## Signature Page

### Site Operator or Authorized Signatory

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Austin Sparks Title: Environmental Manager

Email Address: asparks3@republicservices.com

Signature:  Date: 08/23/2022

### Operator or Principal Executive Officer Designation of Authorized Signatory

*To be completed by the operator if the application is signed by an authorized representative for the operator.*

I hereby designate \_\_\_\_\_ as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Operator or Principal Executive Officer Name: \_\_\_\_\_

Email Address: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Notary

SUBSCRIBED AND SWORN to before me by the said Austin Sparks

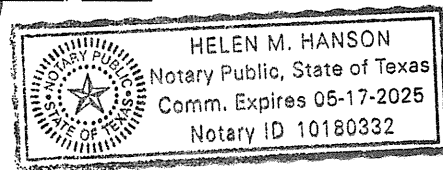
On this 23<sup>rd</sup> day of August, 2022

My commission expires on the 17<sup>th</sup> day of May, 2025

Helen M. Hanson

Notary Public in and for

Tarrant County, Texas



Note: Application Must Bear Signature and Seal of Notary Public

## Attachments for Permit or Registration Modification with Public Notice

Refer to instruction document **200650-instr** for professional engineer seal requirements.

**Attachments Table 1. Required attachments.**

Required Attachments	Attachment Number
Land Ownership Map	5
Landowners List	5
Marked (Redline/Strikeout) Pages	1
Unmarked Revised Pages	2

**Attachments Table 2. Additional attachments as applicable.**

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
<input type="checkbox"/> TCEQ Core Data Form(s)	
<input type="checkbox"/> Signatory Authority Delegation	
<input type="checkbox"/> Fee Payment Receipt	
<input type="checkbox"/> Confidential Documents	

## Attachments for Permit or Registration Name Change or Transfer Modification

Refer to instruction document **200650-instr** for professional engineer seal requirements.

**Attachments Table 5. Required attachments.**

Required Attachments	Attachment Number
TCEQ Core Data Form(s)	
Property Legal Description	
Property Metes and Bounds Description	
Metes and Bounds Drawings	
On-Site Easements Drawing	
Land Ownership Map	
Land Ownership List	
Property Owner Affidavit	
Verification of Legal Status	
Evidence of Competency	

**Attachments Table 6. Additional attachments as applicable.**

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
<input type="checkbox"/> Signatory Authority Delegation	
<input type="checkbox"/> Fee Payment Receipt	
<input type="checkbox"/> Confidential Documents	
<input type="checkbox"/> Final Plat Record of Property	
<input type="checkbox"/> Assumed Name Certificate	

**ATTACHMENT 5**  
**ADJACENT LANDOWNERS LIST AND MAP**

## **ADJACENT PROPERTY OWNER LIST AND MAP**

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The following list in Table 5-1 and map on Figure 5-1 provide the names, mailing addresses, and location of the “Adjacent and Potentially Affected Property Owners” within 0.25 miles of the site. Refer to Figure 5-1, Adjacent Property Owner Map, for location of the properties. The numbering on the property owner list in Table 5-1 corresponds to the numbers listed on Figure 5-1. The list is based on records of the Cherokee County Appraisal District, posted on the Cherokee County Appraisal District website <http://www.cherokeecad.com/>.

In accordance with Title 30 Texas Administrative Code §330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. The real property appraisal records do not show any mineral rights owners.

**TABLE 5-1  
PROPERTY OWNER LIST**

---

- |     |  |     |   |
|-----|--|-----|---|
| 1.  | CITY OF JACKSONVILLE<br>PO BOX 1390<br>JACKSONVILLE TX 75766                       | 11. | ALLEN EARLE L SR & BONNIE R LIFE ESTATE<br>408 LENORA ST<br>JACKSONVILLE TX 75766   |
| 2.  | LARRY & TERRY ODOM ESTATE<br>1342 CR 4102<br>JACKSONVILLE TX 75766                 | 12. | RICHARD CRANE<br>2417 LAKESHORE DRIVE<br>JACKSONVILLE TX 75766  |
| 3.  | KELLENE S JARRATT<br>122 LA COLINA<br>EDGEWATER FL 32141                           | 13. | BENJAMIN BECERRA LOPEZ<br>1512 ELBERTA STREET<br>JACKSONVILLE TX 75766  |
| 4.  | ROLAND ADAMS<br>1101 CANADA<br>JACKSONVILLE TX 75766                               | 14. | TROY D ALLEN<br>1528 ELBERTA STREET<br>JACKSONVILLE TX 75766  |
| 5.  | FRANK STUART<br>1660 CR 4101<br>JACKSONVILLE TX 75766                              | 15. | JADE NEELY ETAL<br>C/O JADE L NEELY<br>389 CR 3908<br>JACKSONVILLE TX 75766   |
| 6.  | KENNETH W & STET HOOTON<br>460 CR 2408<br>RUSK, TX 75785                           | 16. | RODNEY ROWE<br>STET<br>JACKSONVILLE TX 75766  |
| 7.  | ROBERTA MAE HAIGHT<br>C/O KIMMI KIMBRELL<br>1615 CR 4101<br>JACKSONVILLE, TX 75766 | 17. | 11 X 17 OFFICE SOLUTIONS LLC<br>PO BOX 117<br>JACKSONVILLE TX 75766   |
| 8.  | KIMMI DANIELS ETAL<br>C/O JANET MCDANIEL<br>2425 HOLLY ST<br>JACKSONVILLE, TX 7566 | 18. | SNOKE SPECIAL PRODUCTS CO INC<br>ATTN JOHN WILSON<br>PO BOX 955<br>BULLARD TX 75757                                       |
| 9.  | SKYLAR 237 PROPERTIES, LLC<br>4823 BAYWOOD DR<br>PASADENA, TX 77505                | 19. | AGAPE CHRISTIAN FELLOWSHIP<br>C/O CHRIST THE SAVIOUR ORTHODOX<br>CHRISTIAN CHURCH<br>PO BOX 2375<br>JACKSONVILLE TX 75766 |
| 10. | BOB E WALLACE<br>C/O PEGGY FOSHEE<br>1505 CUSHING<br>TYLER TX 75702                | 20. | SCHARA LANDON JOHNSON<br>PO BOX 882<br>WYLIE, TX 75098  |



**TABLE 5-1  
PROPERTY OWNER LIST  
(Continued)**

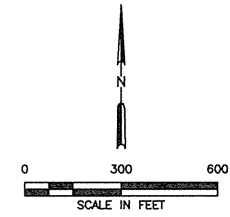
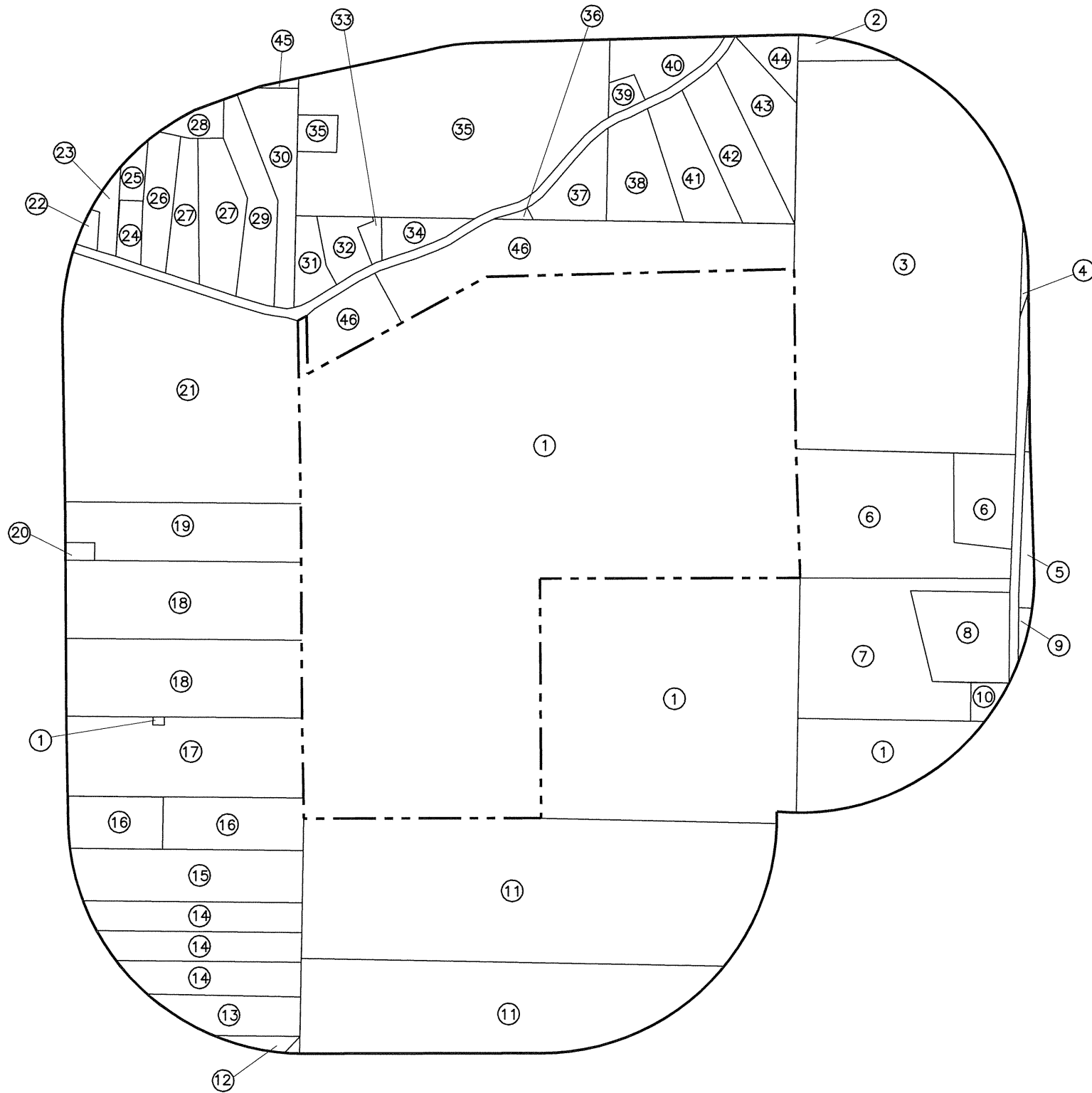
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21.	TIM & DEBRA S PIERCE 1828 ELBERTA STREET JACKSONVILLE TX 75766	31.	ANTONIO L & SOLEDAD H RIOS 653 CR 4102 JACKSONVILLE TX 75766
22.	JOYCE D KELLY C/O SAMMIE GREEN 5491 ST HWY 135N JACKSONVILLE TX 75766	32.	TOBY W & LAURA A PHILLIPS 707 CR 4102 JACKSONVILLE TX 75766
23.	ZACARIAS RESENDIZ & MARTHA MARTINEZ 145 CR 4126 JACKSONVILLE TX 75766	33.	FLORES VERONICA MARTINEZ AND JANICE WASHBURN ESTATE 733 CR 4102 JACKSONVILLE TX 75766
24.	JOSE ANTONIO SERVIN 435 CR 4102 JACKSONVILLE TX 75766	34.	MARIA D AND EDUARDO D RODRIGUEZ 1508 BURLESON ST JACKSONVILLE, TX 75766
25.	VENANCIO SERVIN 229 CR 4126 JACKSONVILLE TX 75766	35.	BRIAN A & SHANNON DODD 883 CR 4102 JACKSONVILLE TX 75766
26.	JOSE ANTONIO SERVIN 435 CR 4102 JACKSONVILLE TX 75766	36.	NORTH CHEROKEE WATER SUPPLY CORP PO BOX 1021 JACKSONVILLE TX 75766
27.	DOUGLAS & KIMBERLY CONAWAY PO BOX 1343 JACKSONVILLE TX 75766	37.	TOMMY J & DEBRA D GRIFFIN PO BOX 1835 JACKSONVILLE TX 75766
28.	EVERETT PAUL GROGAN 254 CR 4126 JACKSONVILLE TX 75766	38.	MARTIN LUNA 1024 CR 4102 JACKSONVILLE TX 75766
29.	KEITH & CAROLYN WRIGHT 3815 CR 1120 TYLER TX 75704	39.	SHIRLEY CLARA L 1043 CR 4102 JACKSONVILLE TX 75766
30.	JOSE & RAFAELA HERERRA 593 CR 4102 JACKSONVILLE TX 75766	40.	I AND K PROPERTIES LTD 2070 EQUESTRIAN TYLER, TX 75703

**TABLE 5-1  
PROPERTY OWNER LIST  
(Continued)**

---

- 41. ANDRES SERVIN  
1084 CR 4102  
JACKSONVILLE TX 75766
  
- 42. ALFREDO BALDERAS  
1132 CR 4102  
JACKSONVILLE TX 75766
  
- 43. CIPRIANO & ANTONIO RIOS  
1007 DEATON ST  
JACKSONVILLE TX 75766
  
- 44. GUADALUPE & JUAN C ZAVALA  
1220 CR 4102  
JACKSONVILLE TX 75766
  
- 45. SUSAN CLEMENTS MELIAH LIFE ESTATE  
472 CR 4126  
JACKSONVILLE TX 75766
  
- 46. JACKSONVILLE ECONOMIC  
DEVELOPMENT CORPORATION  
309 E COMMERCE ST  
JACKSONVILLE, TX 75766

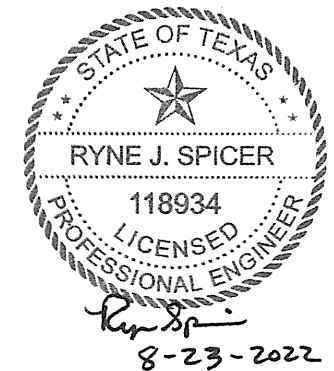


LEGEND

- LANDFILL PERMIT BOUNDARY
- 1/4 MILE RADIUS
- PROPERTY OWNER DESIGNATION (SEE NOTES 1 AND 2)

NOTES:

1. REFERS TO PROPERTY OWNERS LISTED ON ATTACHED PROPERTY OWNER LIST.
2. PROPERTY OWNER LIST DEVELOPED FROM AUGUST 2022 CHEROKEE COUNTY APPRAISAL DISTRICT RECORDS FOR PROPERTIES LOCATED WITHIN A QUARTER MILE OF THE PERMIT BOUNDARY.



<input type="checkbox"/> DRAFT <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION	PREPARED FOR PINE HILL FARMS LANDFILL TX, LP	PERMIT MODIFICATION ADJACENT PROPERTY OWNER MAP  ROYAL OAKS LANDFILL CHEROKEE COUNTY, TEXAS								
	DATE: 08/2022 FILE: 0120-76-11-91 CAD: PROPERTY OWNER.DWG		DRAWN BY: SRF DESIGN BY: JBP REVIEWED BY: RJS							
REVISIONS		WWW.WCGRP.COM								
<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			NO.	DATE	DESCRIPTION					
NO.	DATE	DESCRIPTION								
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		FIGURE 5-1								