



Sustainability in Action

October 7, 2022

Ms. Megan Henson
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
Greenwood Farms Landfill – Permit No. MSW-1972A
Smith County, Texas

Dear Ms. Henson:

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 September 14, 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.

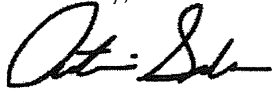
Please process this modification per Title 30 Texas Administrative Code (TAC) §305.70(k)(1) which allows for the use of an alternative daily cover material on a permanent basis.

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
Forrest Hunter, Greenwood Landfill TX, LP
Ryne J. Spicer, P.E., Weaver Consultants Group, LLC

ATTACHMENT 1

SOP REPLACEMENT PAGES (REDLINE/STRIKEOUT COPY)

**GREENWOOD FARMS LANDFILL
SMITH COUNTY, TEXAS
TCEQ PERMIT NO. MSW-1972A**

PERMIT MODIFICATION

**PART IV – SITE OPERATING PLAN
APPENDIX IVB
ALTERNATIVE DAILY COVER OPERATING PLAN**

Prepared for

Greenwood Landfill TX, LP

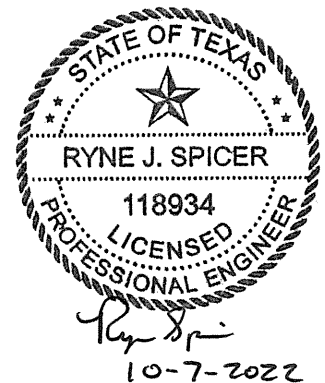
TCEQ Approved April 26, 2006

Revised September 2012

Revised July 2013

Revised August 2017

Revised October 2022



Prepared by

Weaver Consultants Group, LLC

TBPE Registration No. F-3727

6420 Southwest Blvd., Suite 206

Fort Worth, Texas 76109

817-735-9770

WBC Project No. 0120-080-11-127

ADC SUMMARY

The site is currently approved to use Enviro-Plus, ~~and~~ Quick Cover, and VERDac Landfill Cover Pellets spray-on type ADCs, and synthetic tarp ADC. The ADCOP for the approved ADC materials is provided on the following pages.

Consistent with §330.165(d), a temporary authorization will be submitted for any additional future ADC materials. Consistent with §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 material, 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 consistent with 30 TAC §305.70(k)(1) will be submitted to the TCEQ to obtain permanent approval of the ADC material.

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APPENDIX A

Enviro-Plus

APPENDIX B

Synthetic Tarps

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Quick Cover

APPENDIX D

VERDac Landfill Cover Pellets



2 MATERIAL CHARACTERISTICS

2.1 Description of ADC Materials

The following ADC materials may be used at the site.

- Enviro-Plus is produced by Southwest Environment Services, Inc. Enviro-Plus consists of wood and paper fibers, which is mixed with a guar gum tackifier and applied with a hydromulch machine. This ADC spray material will form a crust-like barrier after application. The hardened product is similar to other TCEQ approved ADC materials. Additional information for this material is included in Appendix A.
- Synthetic tarps (i.e., Fabrene[®] Industrial Synthetic Fabrics – Type RTGPN9N9) to be used as ADC material consist of a high density woven polyethylene coated fabric. Panels of the fabric are heat welded together for the desired width. A series of high tensile strength nylon web straps are sewn around the perimeter of the synthetic tarps for added strength. All tarps used as ADC will meet or exceed the material specifications included in Appendix B. The tarps will have a minimum thickness of 0.20 mils.
- 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 C.
- 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

Chemical characteristics of Enviro-Plus, Quick Cover, and the synthetic tarps, and VERDac are included in Appendix A through E. Enviro-Plus, Quick Cover, and the synthetic tarps, and VERDac are not reactive, ignitable, or corrosive under the expected conditions (e.g., high temperature, intense sunlight).

3 OPERATIONAL METHODS

The following subsections discuss the operational procedures that will be used to employ the approved ADC materials. For each type of ADC, site personnel will verify that the waste fill area has been covered with the minimum required thickness at the completion of each working day.

3.1 Spray-Type ADCs

The spray-type ADCs included in this plan are Enviro-Plus, Quick Cover, and VERDac. The material 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, Enviro-Plus, Quick Cover, and VERDac. Specifically, the mixing ratios and application rates for each of the spray-type ADC materials (refer to Table 3-1 for additional information). This ADCOP includes information on each product in Appendix A for Enviro-Plus and Appendix C for Quick Cover, as well as the MSDS for this each product, however, manufacturer's instructions included with the for each ADC material itself should be followed as well. The MSDS for Enviro-Plus, Quick Cover, and VERDac is included in Appendices A, C, and D, respectively.
2. The operator will not operate the hydroseed machine until he the operator has 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. Then, using the hydroseed 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. This thickness specification is based on consultation with the TCEQ and suggested manufacturer application rates as demonstrated in Table 3-1. Stormwater that comes in contact with the spray-type ADC will be managed consistent with the requirements for contaminated water in the facility's Leachate and Contaminated Water Plan.

**Table 3-1
ADC Thickness Information**

| Product | Approximate Thickness | Density of ADC Material | Actual Application Rate ^{1,3} | Manufacturer's Recommended Application Rate | Acceptable (Actual Application Rate at a thickness of 0.25-inches > Manufacturer's Application Rate) |
|---------------------|-----------------------|-------------------------|--|---|--|
| Enviro-Plus | 0.25 in | 5 lbs/cf | 4,538 lbs/ac | 2,000 lbs/ac | Yes |
| Quick Cover | 0.25 in | 12.9 lbs/cf | 11,707 lb/ac | -. ² | Yes |
| VERDac ³ | 0.25 in | 20-35 lbs/cf | 5-7.5 ft ² /gal | 10-15 ft ² /gal | Yes |

¹ Calculated actual application rate vs. manufacturer's recommended application rate using a thickness of 0.25 in. Calculation for actual application rate using a minimum thickness of 0.25-inches is determined below.

$$\begin{aligned} \text{Actual Application Rate} &= \text{Volume Consumed by ADC Material} \times \text{Density of ADC} \\ &\text{at Active Face (per acre)} \qquad \qquad \qquad \text{Material} \\ &= [(0.25 \text{ in}/12 \text{ in/ft}) \times 43,560 \text{ ft}^2] \text{ (Enviro-Plus: 5 lbs/cf, Quick Cover: 12.9 lbs/cf)} \\ &= \text{Enviro-Plus}=4,538 \text{ lbs of mixture/acre, Quick Cover}=11,707 \text{ lbs of mixture/acre} \end{aligned}$$

² Manufacturer's recommended application is 0.25 inches over exposed waste.

³ VERDac manufacturer's recommended application rate is 10-15 ft²/gal to achieve 0.125 inches over exposed waste. To achieve 0.25 inches over exposed waste, an application rate of 5-7.5 ft²/gal is required.

3.2 Synthetic Tarp ADC

Using standard landfill equipment and site personnel, the tarp(s) will be placed over the waste. The tarps are weighted around the perimeter by built-in 3/8" chains (1.4 lbs/ft to 1.6 lbs/ft) which are also used for rolling and unrolling the tarp. In addition, the tarps are constructed with 1 inch diameter cables spaced every 10 feet along the length of the tarp to provide additional anchoring weight. Supplemental anchoring will be used when wind speeds of greater than 40 mph are expected (please note that the site will use extreme caution when deciding to use tarps in these conditions and may choose to use 6" of soil or an alternate approved ADC in place of the tarp). Additional anchoring will be used to secure the sides and ends and will include materials such as sand bags weighing 10 lbs minimum. Supplemental anchor spacing will depend on daily conditions (i.e., area of working face covered with tarps, wind, etc.) but will always be sufficient to hold tarps in place. If reusable tarps are used, the tarps will be removed within 24 hours of their application and prior to waste placement. Tarps may be used to cover the entire working face or in combination with soil or other approved ADC material to provide complete

4 ADC MATERIAL PERFORMANCE AND INSPECTION PROCEDURES

4.1 ADC Performance

Each of the spray-type ADC materials, Enviro-Plus, and Quick Cover, and VERDac, included in this plan have 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 materials 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 Enviro-Plus, and Quick Cover, and VERDac have 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 synthetic tarp ADC material specified in this plan serves as a physical barrier over waste. The synthetic tarp ADC will control vectors, windblown waste, and odor, and will minimize fire hazards by creating a physical barrier between the atmosphere and waste. The tarps are not flammable, are sufficiently heavy, and will be properly anchored to remain positioned over waste when in use.

4.2 Verification and Inspection Procedures

At the end of each working day, landfill personnel will inspect the working face to confirm that 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 waste. Daily application of ADC will be documented and maintained in the site operating records.

In the event that the ADC does not control vectors, fires, odors, or windblown waste, then the ADC application process will be re-evaluated to ensure that 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

VERDAC LANDFILL COVER PELLETS



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.



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VERDac Landfill Cover Pellets

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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 ³ | 0.1 mg/m ³ |
| Wood Dust | 1 mg/m ³ | 1 mg/m ³ |
| Particles Not Otherwise Regulated | | |
| Total Dust | 15 mg/m ³ | N/A |
| Respirable Dust | 5 mg/m ³ | 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.



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SDS

LSC Environmental Products, LLC
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VERDac Landfill Cover Pellets

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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 ³ (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.



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

VERDac Landfill Cover Pellets

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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.

ATTACHMENT 2
SOP REPLACEMENT PAGES (CLEAN COPY)

**GREENWOOD FARMS LANDFILL
SMITH COUNTY, TEXAS
TCEQ PERMIT NO. MSW-1972A**

PERMIT MODIFICATION

**PART IV – SITE OPERATING PLAN
APPENDIX IVB
ALTERNATIVE DAILY COVER OPERATING PLAN**

Prepared for

Greenwood Landfill TX, LP

TCEQ Approved April 26, 2006

Revised September 2012

Revised July 2013

Revised August 2017

Revised October 2022



Prepared by

Weaver Consultants Group, LLC

TBPE Registration No. F-3727

6420 Southwest Blvd., Suite 206

Fort Worth, Texas 76109

817-735-9770

WBC Project No. 0120-080-11-127

ADC SUMMARY

The site is currently approved to use Enviro-Plus, Quick Cover, and VERDac Landfill Cover Pellets spray-on type ADCs, and synthetic tarp ADC. The ADCOP for the approved ADC materials is provided on the following pages.

Consistent with §330.165(d), a temporary authorization will be submitted for any additional future ADC materials. Consistent with §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 material, 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 consistent with 30 TAC §305.70(k)(1) will be submitted to the TCEQ to obtain permanent approval of the ADC material.

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APPENDIX A

Enviro-Plus

APPENDIX B

Synthetic Tarps

APPENDIX C

Quick Cover

APPENDIX D

VERDac Landfill Cover Pellets



2 MATERIAL CHARACTERISTICS

2.1 Description of ADC Materials

The following ADC materials may be used at the site.

- Enviro-Plus is produced by Southwest Environment Services, Inc. Enviro-Plus consists of wood and paper fibers, which is mixed with a guar gum tackifier and applied with a hydromulch machine. This ADC spray material will form a crust-like barrier after application. The hardened product is similar to other TCEQ approved ADC materials. Additional information for this material is included in Appendix A.
- Synthetic tarps (i.e., Fabrene[®] Industrial Synthetic Fabrics – Type RTGPN9N9) to be used as ADC material consist of a high density woven polyethylene coated fabric. Panels of the fabric are heat welded together for the desired width. A series of high tensile strength nylon web straps are sewn around the perimeter of the synthetic tarps for added strength. All tarps used as ADC will meet or exceed the material specifications included in Appendix B. The tarps will have a minimum thickness of 0.20 mils.
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2.2 Chemical Characteristics

Chemical characteristics of Enviro-Plus, Quick Cover, synthetic tarps, and VERDac are included in Appendix A through D. Enviro-Plus, Quick Cover, synthetic tarps, and VERDac are not reactive, ignitable, or corrosive under the expected conditions (e.g., high temperature, intense sunlight).

3 OPERATIONAL METHODS

The following subsections discuss the operational procedures that will be used to employ the approved ADC materials. For each type of ADC, site personnel will verify that the waste fill area has been covered with the minimum required thickness at the completion of each working day.

3.1 Spray-Type ADCs

The spray-type ADCs included in this plan are Enviro-Plus, Quick Cover, and VERDac. The material 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, Enviro-Plus, Quick Cover, and VERDac. Specifically, the mixing ratios and application rates for each of the spray-type ADC materials (refer to Table 3-1 for additional information). This ADCOP includes the MSDS for each product, however, manufacturer's instructions for each ADC material should be followed as well. The MSDS for Enviro-Plus, Quick Cover, and VERDac is included in Appendices A, C, and D, respectively.
2. The operator will not operate the hydroseed machine until the operator has 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. Then, using the hydroseed 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. This thickness specification is based on consultation with the TCEQ and suggested manufacturer application rates as demonstrated in Table 3-1. Stormwater that comes in contact with the spray-type ADC will be managed consistent with the requirements for contaminated water in the facility's Leachate and Contaminated Water Plan.

**Table 3-1
ADC Thickness Information**

| Product | Approximate Thickness | Density of ADC Material | Actual Application Rate ^{1,3} | Manufacturer's Recommended Application Rate | Acceptable (Actual Application Rate at a thickness of 0.25-inches > Manufacturer's Application Rate) |
|---------------------|-----------------------|-------------------------|--|---|--|
| Enviro-Plus | 0.25 in | 5 lbs/cf | 4,538 lbs/ac | 2,000 lbs/ac | Yes |
| Quick Cover | 0.25 in | 12.9 lbs/cf | 11,707 lb/ac | - ² | Yes |
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¹ Calculated actual application rate vs. manufacturer's recommended application rate using a thickness of 0.25 in. Calculation for actual application rate using a minimum thickness of 0.25-inches is determined below.

$$\begin{aligned}
 \text{Actual Application Rate} &= \text{Volume Consumed by ADC Material} \times \text{Density of ADC} \\
 &\text{at Active Face (per acre)} \qquad \qquad \qquad \text{Material} \\
 &= [(0.25 \text{ in}/12 \text{ in/ft}) \times 43,560 \text{ ft}^2] \text{ (Enviro-Plus:5 lbs/cf, Quick Cover: 12.9 lbs/cf)} \\
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² Manufacturer's recommended application is 0.25 inches over exposed waste.

³ VERDac manufacturer's recommended application rate is 10-15 ft²/gal to achieve 0.125 inches over exposed waste. To achieve 0.25 inches over exposed waste, an application rate of 5-7.5 ft²/gal is required.

3.2 Synthetic Tarp ADC

Using standard landfill equipment and site personnel, the tarp(s) will be placed over the waste. The tarps are weighted around the perimeter by built-in 3/8" chains (1.4 lbs/ft to 1.6 lbs/ft) which are also used for rolling and unrolling the tarp. In addition, the tarps are constructed with 1 inch diameter cables spaced every 10 feet along the length of the tarp to provide additional anchoring weight. Supplemental anchoring will be used when wind speeds of greater than 40 mph are expected (please note that the site will use extreme caution when deciding to use tarps in these conditions and may choose to use 6" of soil or an alternate approved ADC in place of the tarp). Additional anchoring will be used to secure the sides and ends and will include materials such as sand bags weighing 10 lbs minimum. Supplemental anchor spacing will depend on daily conditions (i.e., area of working face covered with tarps, wind, etc.) but will always be sufficient to hold tarps in place. If reusable tarps are used, the tarps will be removed within 24 hours of their application and prior to waste placement. Tarps may be used to cover the entire working face or in combination with soil or other approved ADC material to provide complete

4 ADC MATERIAL PERFORMANCE AND INSPECTION PROCEDURES

4.1 ADC Performance

Each of the spray-type ADC materials, Enviro-Plus, Quick Cover, and VERDac, included in this plan have 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 materials 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 Enviro-Plus, and Quick Cover, and VERDac have 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.

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In the event that the ADC does not control vectors, fires, odors, or windblown waste, then the ADC application process will be re-evaluated to ensure that 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

VERDAC LANDFILL COVER PELLETS



GHS Safety Data Sheet

SDS

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

VERDac Landfill Cover Pellets

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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

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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 ³ | 0.1 mg/m ³ |
| Wood Dust | 1 mg/m ³ | 1 mg/m ³ |
| Particles Not Otherwise Regulated | | |
| Total Dust | 15 mg/m ³ | N/A |
| Respirable Dust | 5 mg/m ³ | 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 ³ (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.

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

September 14, 2021

Mr. Austin Sparks, P.E.
Environmental Manager
Republic Services
12920 FM 2767
Tyler, Texas 75708

Subject: Greenwood Farms Landfill - Smith County
Municipal Solid Waste (MSW) - Permit No. 1972A
Temporary Authorization - Approved
Tracking No. 26513861; RN102533171/CN602847071

Dear Mr. Sparks:

We have reviewed your request dated August 17, 2021 and revisions dated September 7, 2021, for a temporary authorization for the above-referenced facility to use VERDac Landfill Cover Pellets from LSC Environmental Products, LLC on a trial basis to evaluate their effectiveness as an alternate daily cover (ADC) material. 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. Jason P. Baiocchi at (512) 239-0562, by email at Jason.Baiocchi@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 that reads "cgoodin".

Chance Goodin, Manager
Municipal Solid Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality

CG/JPB/tw

cc: Chad Ellinger, Civil & Environmental Consultants, Inc., Houston
Enclosure[s]

Texas Commission on Environmental Quality



Temporary Authorization Municipal Solid Waste Permit No. 1972A Greenwood Landfill Tx, LP – Greenwood Farms Landfill

Municipal Solid Waste (MSW) Permit No. 1972A is hereby authorized as follows:

Description of Temporary Authorization:

Greenwood Farms Landfill, MSW Permit No. 1972A is hereby authorized to use the following material 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 during this trial period.
2. Type of ADC material to be used during this trial period shall be limited to the following:
 - VERDac Landfill Cover Pellets by LSC Environmental Products, LLC
3. The ADC material must be prepared as specified by the manufacturer and applied from at least two different directions or as prescribed by the manufacturer, whichever yields better coverage, to achieve an overall thickness of not less than 0.25 inches over the exposed waste.
4. Storm water runoff from areas that have been covered with the ADC 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 proves to be effective as daily cover in accordance with 30 TAC §330.165(d), the facility may request to incorporate the material 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).
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 August 17, 2021, and the revisions dated September 7, 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: September 14, 2021



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 16, 2022

Mr. Austin Sparks, P.E.
Environmental Manager
Republic Services
12920 FM 2767
Tyler, Texas 75708

Subject: Greenwood Farms Landfill - Smith County
Municipal Solid Waste (MSW) - Permit No. 1972A
Temporary Authorization - One-Time Extension Approved
Tracking No. 27334576; RN102533171/CN602847071

Dear Mr. Sparks:

We have reviewed your submittal dated February 21, 2022, requesting an additional 180-day temporary authorization (TA) to use VERDac Landfill Cover Pellets on a trial basis to evaluate their effectiveness as an alternate daily cover (ADC) material. The facility's initial TA was issued on September 14, 2021. 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. Jason Peter Baiocchi by phone at (512) 239-0562, by email at Jason.Baiocchi@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 that reads "cgoodin".

Chance Goodin, Manager
Municipal Solid Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality

CG/JPB/tw

cc: Chad Ellinger, P.E., Weaver Consultants Group

Enclosure

Texas Commission on Environmental Quality



Temporary Authorization Municipal Solid Waste Permit No. 1972A Greenwood Landfill Tx, LP – Greenwood Farms Landfill

Municipal Solid Waste (MSW) Permit No. 1972A is hereby authorized as follows:

Description of Temporary Authorization:

Greenwood Farms Landfill, MSW Permit No. 1972A is hereby authorized to use the following material on an extended 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 during this trial period.
2. Types of ADC material to be used during this extended trial period shall be limited to the following:
 - VERDac Landfill Cover Pellets by LSC Environmental Products, LSC
3. The ADC material must be prepared as specified by the manufacturer and applied from at least two different directions or as prescribed by the manufacturer, whichever yields better coverage, to achieve an overall thickness of not less than 0.25 inches over the exposed waste.
4. Storm water runoff from areas that have been covered with the ADC and from 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 material proves to be effective as daily cover in accordance with 30 TAC §330.165(d), the facility may request to incorporate the material 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 August 17, 2021, revisions dated September 7, 2021, and the extension request dated February 21, 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.

Issued Date: March 16, 2022



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: Greenwood Farms Landfill
Permittee or Registrant Name: Greenwood Landfill TX, LP
MSW Authorization Number: 1972A
Initial Submission Date: 10/2022
Revision Date: _____

Instructions for completing this form are provided in [form TCEQ-20650-instr¹](#). If you have questions, contact the Municipal Solid Waste Permits Section by email to 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/

If paid online, enter ePay Trace Number: 582EA000506038

¹ 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: Greenwood Farms Landfill

Contact Name: Forrest Hunter Title: Operations Manager

MSW Authorization Number (if existing): 1972A

Regulated Entity Reference Number: **RN** 102533171

Physical or Street Address: 12920 FM 2767

City: Tyler County: Smith State: TX Zip Code: 75708

Phone Number: 903-566-5007

Latitude (Degrees, Minutes Seconds): 32° 22' 21"

Longitude (Degrees, Minutes Seconds): 95° 11' 18"

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 add the use of VERDac Landfill Cover Pellets Alternative Daily Cover (ADC) at the site on a permanent basis in accordance with 30 TAC §305.70(k)(1).

11. Facility Contact Information

Site Operator (Permittee or Registrant)

Name: Greenwood Landfill TX, LP
Customer Reference Number: **CN** 602847071
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: 0014223811

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: _____
Mailing Address: _____
City: _____ County: _____ State: TX Zip Code: _____
Phone Number: _____
Email Address: _____

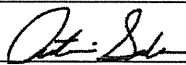
Signature Page

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: 10/07/2022

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

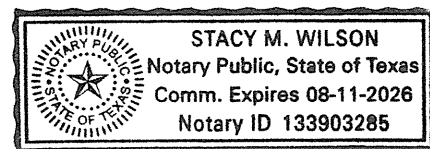
On this 7th day of October, 2022

My commission expires on the 11th day of August, 2026

Stacy M. Wilson

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 Modification without Public Notice, or Temporary Authorization

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

Attachments Table 3. Required attachments for modifications.

| Required Attachments for Modification | Attachment Number |
|---------------------------------------|-------------------|
| Marked (Redline/Strikeout) Pages | |
| Unmarked Revised Pages | |

Attachments Table 4. Additional attachments for modifications and temporary authorizations, 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 LANDOWNERS LIST AND MAP

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 Landowners” 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 Adjacent Property Owner List in Table 5-1 corresponds to the numbers listed on Figure 5-1. The list was compiled by Weaver Consultants Group in September 2022. The list is based on records of the Smith County Appraisal District, posted on the Smith County Appraisal District website <http://www.smithcad.org/wab/>.

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
ADJACENT LANDOWNERS LIST**

- | | |
|--|--|
| 1. CITY OF TYLER ATTN: CITY CLERK P.O. BOX 2039 TYLER, TX 75710-2039 | 11. SERGIO LARA CARACHURE 3434 CR 3157 TYLER TX 75708 |
| 2. DARRELL K JACKSON 12765 FM 2767 TYLER TX 75708-5026 | 12. NICHOLAS BARRY WILSON & LAYLA A WILSON 7169 MEADOW BROOKE WAY NORTHFIELD OH 44067 |
| 3. JOHN & JAMEY VANDERWEGE 12729 FM 2767 TYLER TX 75708-5026 | 13. MARSHALL & AMANDA SCOTT 3470 CR 3157 TYLER TX 75708-5000 |
| 4. JOHNNY D & JOYCE M JONES 12729 FM 2767 TYLER, TX 75708-5026 | 14. EARNESTINE WARREN 3912 CR 3157 TYLER TX 75708-5003 |
| 5. BILLY CLYDE HERRING 12883 FM 2767 TYLER, TX 75708 | 15. NAOMI WASHINGTON 3912 CR 3157 TYLER TX 75708-5003 |
| 6. PEDRO MENDEZ GAONA & PEDRO MENDEZ SOSA IN CARE OF & BERTHA MENDEZ MAYA 9323 CEDARVALE DR TYLER, TX 75708-7223 | 16. DREW BARRON 13745 CR 26 TYLER TX 75707 |
| 7. FRANCISCA BORJA CORNEJO LIFE ESTATE 12917 FM 2767 TYLER TX 75708-5028 | 17. JAMES E MOBLEY 1800 W BARRETT ST TYLER TX 75702-3018 |
| 8. JIMMY W MURPHY ET AL PO BOX 24455 HOUSTON TX 77229 | 18. KEVIN MOBLEY 3839 SENIC DR TYLER TX 75709-5403 |
| 9. ANGEL A AMAYA 12025 CR 46 TYLER TX 75704 | 19. KEARY MOBLEY 5914 BRYNMAR CT TYLER TX 75703 |
| 10. DAVID G & DREMA L DOMAIN 3414 CR 3157 TYLER TX 75708 | 20. SONYA MOBLEY %SONYA KENNEDY 14265 FM 2767 TYLER TX 75708 |

**TABLE 5-1
ADJACENT LANDOWNERS LIST
(Continued)**

| | | | |
|-----|--|-----|--|
| 21. | SHERRYLL HARVEY 14277 FM 2767 TYLER TX 75708-5040 | 31. | JOYCE CHANDLER 14183 FM 2767 TYLER TX 75708-5039 |
| 22. | ANTOINETTE SHERMAN 12449 COUNTY ROAD 468 TYLER TX 75706-5607 | 32. | ST VIOLET BAPTIST CHURCH PO BOX 132122 TYLER TX 75713-2122 |
| 23. | JAMES A MOBLEY 2014 EDEN DR LONGVIEW TX 75601 | 33. | DREW BARRON 13745 CR 26 TYLER TX 75707 |
| 24. | MAGDALENO MARTINEZ 3629 FM 2908 TYLER TX 75708-0000 | 34. | JOSE LUIS LESEA 4041 FM 2908 TYLER TX 75708-0000 |
| 25. | JOSE JOHNSON 14155 FM 2767 TYLER TX 75708-5039 | 35. | JOANNA S BOLTES 3893 FM 2908 TYLER TX 75708-0000 |
| 26. | ANGELA JOHNSON ROGERS 3543 FM 2908 TYLER TX 75708-5124 | 36. | STATE OF TEXAS PO BOX 1700 AUSTIN TX 78767-0000 |
| 27. | JOHNNIE MAE MOBLEY 3537 FM 2908 TYLER TX 75708-5124 | 37. | OLLIE FAY OLIVER 3803 FM 2908 TYLER TX 75708-5127 |
| 28. | MARLIN L BEAL SR 14383 FM 2767 TYLER TX 75705-0000 | 38. | HENRY EARL & ROSE MARIE CHOICE 3635 FM RD 2908 TYLER TX 75708 |
| 29. | JOSE MANUEL NAJERA & HEIDY CLAUDETT 3023 BENBROOK DR TYLER TX 75702 | 39. | CHARLES & GENEVA JOHNSON 3984 FM 2908 TYLER TX 75708-5114 |
| 30. | JOHNSON MARCUS 5540 LAVACA RD GRAND PRAIRIE TX 75702 | 40. | NORA SANDERS 591 VZ COUNTY ROAD 4925 BEN WHEELER TX 75754 |

**TABLE 5-1
ADJACENT LANDOWNERS LIST
(Continued)**

| | | | |
|-----|--|-----|---|
| 41. | TARE-WICKWARE WILMA JEAN & DONALD KEITH TARE C/O GWINDELL & STEVIE WAYNE TARE 14453 CR 3159 TYLER TX 75708 | 51. | MARYLAND RUTH KENNEDY 14475 COUNTY ROAD 3158 TYLER TX 75708-5102 |
| 42. | IMOGENE JACKSON 14473 COUNTY RD 3159 TYLER TX 75708-5106 | 52. | LEONARD KENNEDY 16410 ST HWY 31 E TYLER TX 75705-0000 |
| 43. | KENNETH SMITH TAVE 14491 COUNTY ROAD 3159 TYLER TX 75708-5106 | 53. | KENNEDY FAMILY REVOCABLE LIVING TRUST BILLY J & EVELYN H KENNEDY CO- TRUSTEES 14482 COUNTY ROAD 3159 TYLER TX 75708-5104 |
| 44. | JENNIFER ALVIZU 510 E LOOP 281 STE B LONGVIEW TX 75605 | 54. | DOROTHY JOHNSON 14498 COUNTY ROAD 3159 TYLER TX 75708 |
| 45. | RICHARD E MCCOWIN 14444 COUNTY ROAD 3159 TYLER TX 75708-5104 | 55. | J C GAINS 14514 COUNTY ROAD 3159 TYLER TX 75708-5105 |
| 46. | SAMUEL MACIAS 14464 COUNTY ROAD 3159 TYLER TX 75708-4801 | 56. | MAY PEARL & RICHARD D PRYOR 3534 FM 2908 TYLER TX 75708-5111 |
| 47. | BILLY JOE & EVELYN HOLLIS KENNEDY 14482 COUNTY ROAD 3159 TYLER TX 75708-5104 | 57. | ADRIAN BROWN 2734 SPRING CANYON CT HOUSTON TX 77067-1137 |
| 48. | DIEGO N LOREDO TORRES 14498 COUNTY ROAD 3159 TYLER TX 75708-0000 | 58. | ALLEN CHARLES & FELICITA DUNN 14474 CR 3158 TYLER TX 75708 |
| 49. | GAINES J C ESTATE & MYRTICE 14514 COUNTY ROAD 3159 TYLER TX 75708-5105 | 59. | MARY HOWARD NEWSOME 14426 FM 2767 TYLER TX 75705-0000 |
| 50. | DAVID E MCCLEVELAND 1429 N FANNIN AVE TYLER TX 75702-4575 | 60. | VERNON CADDELL 7714 HWY 110 NORTH TYLER TX 75704-0000 |

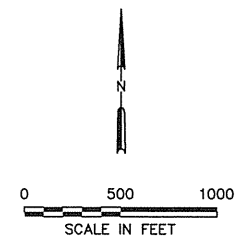
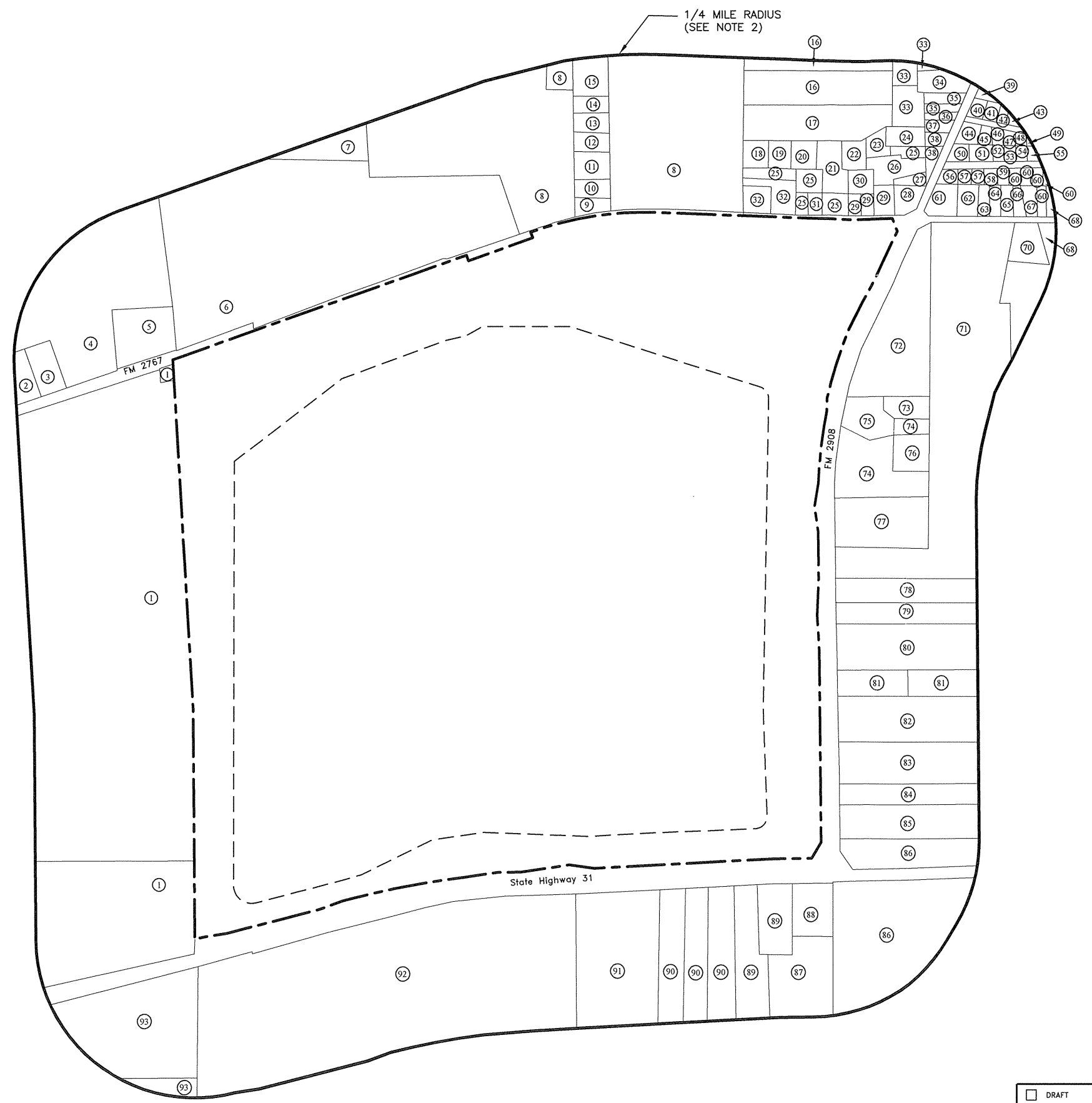
**TABLE 5-1
ADJACENT LANDOWNERS LIST
(Continued)**

| | | | |
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| 61. | ST TITUS GOSPEL OF CHRIST 14383 FM 2767 TYLER TX 75705-2703 | 71. | GRACE COMMUNITY FOUNDATION 1828 ESE LOOP 323 #300 TYLER TX 75701 |
| 62. | MARLYN L & RUTH HAZEL BEAL 14383 FM 2767 TYLER TX 75705-2703 | 72. | FED HOLMES ESTATE 14344 FM 2767 TYLER TX 75705-2702 |
| 63. | JACK NEELY 14397 FM RD 2767 TYLER TX 75705-2703 | 73. | WESLEY D HARVEY 2280 FM 2908 TYLER TX 75705-2722 |
| 64. | MARY HOWARD 14425 FM 2767 TYLER TX 75705-2705 | 74. | TROY L RAINEY PO BOX 131259 TYLER TX 75713 |
| 65. | JUAN CARLOS PEREZ 14439 FM 2767 TYLER TX 75705 | 75. | WILLIAM H & JANET RAINEY LIFE ESTATE 2276 FM 2908 TYLER TX 75705-2722 |
| 66. | ESTELLA BATTLES 14473 FM 2767 TYLER TX 75705-2705 | 76. | TROY & DELIA RAINEY PO BOX 131259 TYLER TX 75713 |
| 67. | LOUISE AUSTIN 824 STAIN GLASS DR DESOTO TX 75115-6060 | 77. | KATHY & DENISE DAVENPORT 853 MT PLEASANT CUT OFF HALLSVILLE TX 75650-0000 |
| 68. | PAUL & JACQUELINE SUELL 14523 FM 2767 TYLER TX 75705-2707 | 78. | 3-T EXPLORATION INC ATTN: THOMAS TY THACKER 3707 MAPLEWOOD AVE STE 100 WICHITA FALLS TX 76308-0000 |
| 69. | DARYLE & COLLEEN MULLENS 14546 FM 2767 TYLER TX 75701-0000 | 79. | WILLIE DALLAS BARBER III 3319 GREG LN TYLER TX 75701-7331 |
| 70. | JUAN & FLOR IBARRA 14494 FM 2767 TYLER TX 75705-2704 | 80. | LOLA V RICHARDSON 1192 FM 2908 TYLER TX 75705-2714 |

**TABLE 5-1
ADJACENT LANDOWNERS LIST
(Continued)**

- | | | | |
|-----|--|-----|--|
| 81. | SYLVIE MICHAELA GEER 512 STANFORD ST TYLER TX 75701 | 91. | JOSE FERNANDO GALVAN 13892 HIGHWAY 31 E TYLER TX 75705 |
| 82. | JOYCE MANESS 9269 FARM ROAD 137 PARIS TX 75460-8113 | 92. | HUBERT E & L LEE KIDD 102 N COLLEGE STE 106 TYLER TX 75702 |
| 83. | PATRICIA MARIE HEARD PO BOX 8063 TYLER TX 75711-8063 | 93. | DPH MANAGEMENT CO LLC 705 MEADOW CREEK DR TYLER TX 75703 |
| 84. | DOLORES GARCIA 522 FM 2908 TYLER TX 75705-0000 | | |
| 85. | GEORGE E & SANDRA G MCCOWIN 502 FM 2908 TYLER TX 75705-0000 | | |
| 86. | LEX L KIDD 102 N COLLEGE STE 707 TYLER TX 75702 | | |
| 87. | MIKE ROWE & JANICE 14170 STATE HIGHWAY 31 E TYLER TX 75705-2526 | | |
| 88. | MICHAEL GLENN & JANICE ROWE 14170 STATE HIGHWAY 31 E TYLER TX 75705-2526 | | |
| 89. | LEONARD THOMAS & REBEKAH L WALKER 14110 HWY 31 EAST TYLER TX 75705-2526 | | |
| 90. | CLIFFORD DEAN & REBECCA A LASSETER 13988 HIGHWAY 31 E TYLER TX 75705-2522 | | |

P:\Solid waste\Allied\Greenwood Farms\VERDac ADC (01-2022)\Permit Mod\Figure 1_11 - 5.1 Land Ownership.dwg, rarrington, 1:2



LEGEND

- PERMIT BOUNDARY
- 1/4 MILE RADIUS
- ... LIMITS OF WASTE



NOTES:

1. ① REFERS TO LANDOWNERS LISTED ON TABLE 5-1.
2. THIS LINE REPRESENTS A 1/4 MILE DISTANCE FROM THE LIMIT OF THE PERMIT BOUNDARY.
3. LAND OWNER PROPERTY BOUNDARIES BASED ON INFORMATION FROM SMITH COUNTY APPRAISAL DISTRICT PROPERTY RECORDS. PROPERTY BOUNDARIES SHOWN ARE APPROXIMATE BASED ON TAX RECORDS FROM SEPTEMBER 2022.

| | | | | |
|--|--|------|---|---|
| <input type="checkbox"/> DRAFT <input checked="" type="checkbox"/> FOR PERMITTING PURPOSES ONLY <input type="checkbox"/> ISSUED FOR CONSTRUCTION | PREPARED FOR GREENWOOD LANDFILL TX, LP | | PERMIT MODIFICATION ADJACENT PROPERTY OWNER MAP | |
| | DATE: 09/2022 FILE: 0120-80-11 CAD: FIGURE 5.1 LAND OWNERS.DWG | | | GREENWOOD FARMS LANDFILL SMITH COUNTY, TEXAS |
| DRAWN BY: JBP DESIGN BY: JBP REVIEWED BY: RJS | REVISIONS | | WWW.WCGRP.COM | |
| Weaver Consultants Group TBPE REGISTRATION NO. F-3727 | NO. | DATE | | DESCRIPTION |