W TX LAND FARM RESOURCES 1 LLC
1460 MAIN STREET SUITE 200
SOUTHLAKE TX 76092

Based on information contained in the original application dated August 24, 2015, the amended application received June 13, 2016, and additional information received to date, you are hereby authorized to landtreat and dispose of certain oil and gas waste as specified below at the following facility:

**WTLFR 1 Commercial Landtreatment Facility**
Landtreatment Cells 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14
J. & P.R. R Co Survey 17 Block 30, A-7
Latitude, Longitude: 32.2348°, -101.694318°
Howard and Martin County, Texas
RRC District 08, Midland

**NARRATIVE DESCRIPTION OF PROCESS**
Incoming oil and gas waste will be offloaded into an active landtreatment cell and will be spread, mixed, and tilled into the initial soil horizon to promote reduction of organic constituents and dilution and attenuation of salts and metals. If needed, fertilizers or soil stabilizers may be added into the soil to maintain an appropriate nutrient balance. The landtreatment operation allows for chemical and biological capabilities of the soil and plant systems to mitigate wastes and provide a safe means of disposal without impairing the potential of the land for future reuse.

Authority is granted by the Railroad Commission of Texas (RRC) to receive, store, handle, and treat certain nonhazardous oil and gas wastes in accordance with Texas Administrative Code (TAC) Title 16, Part 1, Chapter §3.8 (Statewide Rule 8,) and is subject to the following minimum conditions:

**I. GENERAL PERMIT CONDITIONS**
A. The effective date of this permit is **September 6, 2017** and expires on **September 5, 2022**.
B. The permittee may not receive, store, or handle, oil and gas wastes or fluids at the facility until financial security in the amount of $**334,837.00** is provided and approved by the RRC for the referenced location. This amount provides financial security for all RRC permitted waste storage and treatment permits associated with this facility.
C. In accordance with 16 TAC § 3.78 (Statewide Rule 78) the permittee shall maintain financial security in the amount of $334,837.00 until this facility has been closed in accordance with this permit. Technical Permitting reserves the right to revise this amount, as necessary. Prior to any modification of this facility that would require increased financial security, an updated closure cost estimate must be submitted to Technical Permitting in Austin, and any additional financial security must be filed with and approved by the RRC prior to making that modification.

D. Technical Permitting in Austin and the appropriate District Office must be notified in writing when construction of the facility begins, and when the facility is complete. The permittee may not receive, store, handle, treat or dispose of oil and gas waste at the facility until the Midland District Office has inspected the facility and has verified that it is constructed in accordance with the application and this permit.

E. No waste may be received at the above referenced facility until the groundwater monitoring wells required by Permit Condition VI. have been completed, developed and sampled. The documentation required by Permit Conditions VI.A. and VI.B. must be provided to and approved by Technical Permitting within 30 days after installation of the groundwater monitoring wells.

F. A site-specific Spill Control Plan that details means and methods of waste containment and recovery in the event of a release must be maintained on-site and made available to RRC staff for review and inspection upon request.

G. The facility’s Stormwater Management Plan, shall be maintained on-site and made available to RRC staff upon request.

H. The permittee may not receive, store, handle, treat or dispose of oil and gas waste at the facility until all necessary air permits (if any) or exemptions are obtained from the Texas Commission on Environmental Quality (TCEQ).

I. This permit may be considered for administrative renewal upon review by the RRC. Any request for renewal should be received at least 60 days prior to the permit expiration date.

J. This permit is nontransferable without the consent of the RRC. Any request for transfer of this permit must be filed with Technical Permitting in Austin at least 60 days before the permittee wishes the transfer to take place.

K. Any deviation from this permit must be approved by amendment from Technical Permitting in Austin before implementation.

L. This permit does not authorize the discharge from the facility of any oil and gas waste, including contaminated or contact storm water.

M. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the facility must be in accordance with the information represented in the permit application and attachments thereto.

N. The permittee must post a sign at the Landtreatment Facility entrance, which must show the facility name and permit number in letters and numerals at least three inches in height.

O. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or bio-accelerator proposed to be used in the treatment of waste at the facility. Use of the compound contingent upon RRC approval and must be used and stored according to the manufacturer’s recommendations.
P. Any soil, media, or other debris contaminated by a spill of waste or any other waste-related materials at the facility must be collected and containerized immediately and processed or disposed of in an authorized manner.

Q. Any soil additives, bio-accelerators, or treatment chemicals must be approved by Technical Permitting prior to use at the facility. They must be stored in vessels designed for the safe storage of the particular compound, and these vessels shall be maintained in leak free condition.

R. An On-Site Sewage Facility (OSSF) may be constructed, operated, and maintained within the boundaries of the subject facility without an additional permit from the RRC if the OSSF waste is not commingled with any other oil and gas waste, the system is designed by a Professional Engineer registered in the state of Texas, or a sewage system installer is licensed in the state of Texas, and the construction, operation, and maintenance of the OSSF complies with all applicable local, county, and state requirements.

S. The permit does not authorize the use or maintenance of any pit in connection with the approved land treatment site. An "Application to Maintain and Use a Pit" (Form H-11) must be submitted and approved by Technical Permitting in Austin before any authorization to use a pit will be granted.

T. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate Environmental Protection Agency (EPA) Methods or Standard Methods by an independent National Environmental Laboratory Accreditation Program (NELAP) certified laboratory neither owned nor operated by the permittee. Any sample collected for laboratory analysis must be collected and preserved in a manner appropriate for that analytical method as specified by 40 CFR, Part 136. All geotechnical testing is to be performed utilizing tests standardized by the American Society for Testing and Materials (ASTM International) and certified by a Texas licensed Professional Engineer.

U. The permittee shall make all records required by this permit available for review and/or copying upon request of RRC personnel.

V. The permittee shall submit a Quarterly Report according to the following:

1. The quarterly reporting periods shall be January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31 of each year.

2. The reports shall be submitted to Technical Permitting in Austin and the appropriate District Office no later than the last day of the month following each reporting period, or each April 30th, July 31st, October 31st, and January 31st, respectively.

3. An Executive Summary shall be included that describes facility operations and relevant activities that occurred during the specific quarter.

4. Data tables presenting volumes or amounts of treated waste shall be included.

5. All records including laboratory analytical reports and the corresponding chain of custody as specified in Permit Condition III.E.3, III.E.4., IV.I., IV.J., V.C.9., and VI.C shall be provided for all chemical analyses performed.

W. Failure to comply with any provision of this permit will be cause for modification, suspension, termination or cancellation of this permit if Technical Permitting determines that the permittee is in violation of Statewide Rule 8 (d)(6)(E).
II. INCOMING WASTE

A. AUTHORIZED WASTE

1. Only oil and gas wastes subject to the jurisdiction of the RRC that are non-hazardous or exempt from Resource Conservation and Recovery Act (RCRA), Subtitle C may be received. You may receive, store, handle, treat and process only the following oil and gas wastes:

   a. Tank Bottoms from gas plants, crude oil reclamation plants, crude oil production/separation facilities;
   b. Water-based drilling mud and associated cuttings;
   c. Oil-based drilling mud and associated cuttings;
   d. Solid material and pit bottoms from collecting and washout pits;
   e. Soil impacted by crude oil or hydrocarbon condensate; and
   f. Produced formation sand and other related oil and gas wastes.

2. No oil and gas Naturally Occurring Radioactive Material (NORM) waste as defined in 16 TAC §4.603 (Oil and Gas NORM) or waste from a facility that is licensed by the Texas Department of State Health Services (DSHS) to process or treat oil and gas NORM waste may be received at the facility.

3. No asbestos-containing material regulated under the Clean Air Act or polychlorinated biphenyls (PCB) containing material regulated under the Toxic Substances Control Act may be accepted for processing at this facility.

4. All waste haulers received at the facility must be RRC permitted Oil and Gas Waste Haulers and must have the subject facility listed as an authorized disposal facility on their “Oil and Gas Waste Hauler’s Authority to use Approved Disposal/Injection System”, (Form WH-3).

5. This permit does not authorize the “active” reclamation of crude oil from oil and gas waste. A request for authorization under 16 TAC §3.57 (Statewide Rule 57) must be submitted to and approved by Technical Permitting in Austin prior to any reclamation activities at the referenced facility.

6. No other waste may be disposed of at this facility.

7. No free oil or free waste water may be disposed of in the landtreatment area.

III. TESTING REQUIREMENTS FOR INCOMING WASTES

A. For the purposes of this permit, other than Extractable Organic Halides (EOX) or Total Organic Halides (TOX) analyses, a representative sample of incoming waste is defined as a composite sample composed of one grab sample from each 50 cubic yards of waste material from each job (e.g., from each well, pit, spill location). For EOX/TOX analyses, a representative sample is defined as one four-part composite sample from each 50 cubic yards of waste material from each job.

B. Each load of incoming waste, other than water-based drilling fluids and associated cuttings, or oil-based drilling fluid and associated cuttings, must be scanned for the presence of NORM using a scintillation meter with a sodium iodide detector or other equivalent devices that comply with 25 TAC §289.259, Texas Regulations for Control of Radiation (TRCR Part 46).
Manufacturer's specifications and calibration records must be submitted to Technical Permitting for equivalent devices used for NORM detection. Any load with a reading of 50 microroentgens per hour or greater may not be unloaded or processed at the facility unless further analysis of the waste demonstrates that the waste does not exceed 30 picocuries (pCi) per gram of Radium-226 *combined with* Radium-228, or 150 pCi per gram of any other radionuclide.

C. Prior to receipt at the site, a representative sample of waste from commercial oil and gas facilities must be analyzed for either of the Parameters listed below and may not exceed the limit for the respective Parameters:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOX (EPA Method 9020B)</td>
<td>100 mg/l</td>
</tr>
<tr>
<td><strong>Or</strong></td>
<td></td>
</tr>
<tr>
<td>EOX (EPA Method 9023)</td>
<td>100 mg/kg</td>
</tr>
</tbody>
</table>

Special authorization for disposal of waste with a TOX/EOX > 100 ppm may be considered. Authority must be obtained from Technical Permitting in Austin prior to receipt of waste.

D. Prior to receipt at the site, representative samples of all incoming RCRA non-exempt waste from commercial oil and gas facilities, including contaminated soil from crude oil transportation, must be analyzed for the following Parameters and may not exceed the specified Limitations:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosivity</td>
<td>pH 2.0 -12.5 standard units (s.u.)</td>
</tr>
<tr>
<td><strong>EPA Method 1110A</strong></td>
<td></td>
</tr>
<tr>
<td>Ignitability</td>
<td>Flash Point &lt; 60° C</td>
</tr>
<tr>
<td><strong>EPA Method 1010A, 1020B, or 1030A</strong></td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>No materials exhibiting the characteristic of reactivity as defined by RCRA</td>
</tr>
<tr>
<td>Toxicity</td>
<td>No materials exhibiting the characteristic of toxicity as defined by RCRA</td>
</tr>
<tr>
<td><strong>EPA Method 1311</strong></td>
<td></td>
</tr>
</tbody>
</table>

Toxic Characteristic Leaching Procedure (TCLP) **EPA Method 1311**

Metals:

*EPA Method 1311/6010/6020/7147A*

- Arsenic (As)        < 5.0 mg/L
- Barium (Ba)         < 100.0 mg/L
- Cadmium (Cd)        < 1.0 mg/L
- Chromium (Cr)       < 5.0 mg/L
- Lead (Pb)           < 5.0 mg/L
- Mercury (Hg)        < 0.2 mg/L
- Selenium (Se)       < 1.0 mg/L
- Silver (Ag)         < 5.0 mg/L

Benzene

*EPA Method 1311/8260/8021B*      < 0.5 mg/L
E. RECORDKEEPING REQUIREMENTS

1. The permittee must maintain the following records on each load of waste received at the facility for a period of three (3) years from the date of receipt:
   a. Description of the site where the waste was generated, including:
      i. Generator name;
      ii. Lease Name and Number and Well Number(s), or gas ID number(s), or American Petroleum Institute (API) well number(s);
      iii. Latitude and longitude coordinates in decimal degrees if waste was not generated on a lease; and
      iv. County;
   b. Name and RRC permit number of the transporter;
   c. Volume of waste material (specify units) received in the landtreatment cell; and
   d. Detailed description of the type of waste, including any laboratory analytical reports and the corresponding chain of custody required by Permit Conditions III.B, III.C., and III.D.

2. The permittee shall maintain the following records on each load of waste removed from the facility for a period of three (3) years from the date of receipt:
   a. Date waste is removed and hauled to an authorized disposal facility;
   b. Name and RRC permit number of the transporter;
   c. Volume (specify units) of each shipment of waste hauled to an authorized disposal facility;
   d. Type of waste (basic sediment, water, water-based mud, etc.); and
   e. Name and permit number of the facility to which the waste was disposed.

3. A report must be submitted to Technical Permitting in Austin and the appropriate District Office as part of the Quarterly Report required in Permit Condition I.V. and shall include the following information:
   a. All records required by Permit Condition III.B., III.C., and III.D above, as well as a summary of waste receipts and manifests;
   b. The total volume of each type of waste material received during the specific quarter; and
   c. Total volume of each type of waste that leaves the facility for disposal or final disposition during the quarter.

4. If no waste was received during the quarter prior to or after construction of the facility is completed, a written statement indicating that "no waste was received" must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.V.

IV. GENERAL FACILITY DESIGN AND MAINTENANCE REQUIREMENTS

A. Unless otherwise specified by this permit, the general layout and arrangement of the Landtreatment Cells shall be consistent with the "General Development Site Plan" (Sheet
9.1) diagram, received June 13, 2016 which is attached to and incorporated into this permit as Permit Appendix A.

B. A sign must be posted at each entrance to the facility. The sign must be readily visible and show the operator name, facility name, and permit number in letters and numerals at least three inches in height.

C. Any material used in the waste treatment process must be stored in vessels designed for the safe storage of the particular chemical and these vessels must be maintained in a leak free condition.

D. Any spill of waste, chemicals, or any other waste-related material must be collected and containerized within 24 hours, and processed or disposed of in an authorized manner.

E. A minimum 50-foot buffer zone shall be maintained between the boundaries of the property and the treatment cells.

F. A minimum 50-foot buffer zone shall be maintained between the exterior toe of the perimeter berm and the existing eight (8) oil wells and three (3) existing well pads as shown on the “General Development Site Plan” (Sheet 9.1) diagram, received June 13, 2016 which is attached to and incorporated into this permit as Permit Appendix A.

G. A minimum 200-foot buffer zone shall be maintained between any surface water features and the landtreatment cells.

H. The facility shall maintain security to prevent unauthorized access. Access shall be secured by a 24-hour attendant or a six-foot high security fence and locked gates when unattended. The locked gates must be installed at each entry point or exit point and must be included in the “as built” drawings. Fencing shall be required unless terrain or vegetation prevents truck or livestock access except through entrances with lockable gates.

I. Each month an inspection of the entire facility must be performed on all, processing equipment, berms, and storage containers for deterioration, leaks and spills. Records of each inspection must be kept on-site and submitted as part of the Quarterly Report required by Permit Condition I.V.

J. The permittee must maintain the following records for a period of three (3) years from the date of the inspection and provide a summary in the Quarterly Report as required by Permit Condition IV.I:

1. The results of the monthly inspection of concrete slabs within the facility for evidence of deterioration, leakage, or storm water run-on, and a description of corrective action taken, if any.

2. The results of the monthly inspection of process equipment, tanks, and roll-off boxes for evidence of deterioration or leakage, and a description of corrective action taken, if any.

3. The results of the monthly inspection of waste levels within the storage areas, tanks, and roll-off boxes, and a description of corrective action taken, if any.

4. The results of the monthly inspections of the facility berms, silt fencing/rock filter dams installed to control and modulate run-off to surface waters and indicate whether debris has been removed.
V. CONSTRUCTION AND OPERATION OF THE LANDTREATMENT AREA

A. CONSTRUCTION

1. The general layout, arrangement, construction, and operation of the Landtreatment Facility must be consistent with the "General Development Site Plan" (Sheet 9.1) schematic available in Permit Appendix A. A total of fourteen landtreatment cells of varying sizes shall be constructed providing approximately 271.12 acres of landtreatment area.

2. The design and construction of each cell must be consistent with the individual cell schematic(s) "Cell #1 Plan" (Sheet 9.2), "Cell #2 Plan" (Sheet 9.4), "Cell #3 & #4 Plan" (Sheet 9.6), "Cell #5" (Sheet 9.9), "Cell #6 & #7 Plan" (Sheet 9.11), "Cell #8 Plan" (Sheet 9.14), "Cell #9 Plan" (Sheet 9.16), "Cell #10 Plan" (Sheet 9.18), "Cell #11 Plan" (Sheet 9.21), "Cell #12 & #13 Plan" (Sheet 9.23), and "Cell #14 Plan" (Sheet 9.26) diagrams, received June 13, 2016 which are attached and incorporated into this permit as Permit Appendix B.

3. The cumulative waste applied to any cell shall not exceed 2,000 barrels or 416 cubic yards per acre or be more than 3-inches in height. Size and capacity of each landtreatment Cell shall be as follows:

<table>
<thead>
<tr>
<th>Landtreatment Cell</th>
<th>Area (acres)</th>
<th>Treated Capacity (vds)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell #1</td>
<td>24.56</td>
<td>10,215</td>
</tr>
<tr>
<td>Cell #2</td>
<td>28.78</td>
<td>11,970</td>
</tr>
<tr>
<td>Cell #3</td>
<td>18.61</td>
<td>7,740</td>
</tr>
<tr>
<td>Cell #4</td>
<td>21.54</td>
<td>8,959</td>
</tr>
<tr>
<td>Cell #5</td>
<td>21.64</td>
<td>9,000</td>
</tr>
<tr>
<td>Cell #6</td>
<td>21.36</td>
<td>8,884</td>
</tr>
<tr>
<td>Cell #7</td>
<td>17.69</td>
<td>7,358</td>
</tr>
<tr>
<td>Cell #8</td>
<td>15.58</td>
<td>6,480</td>
</tr>
<tr>
<td>Cell #9</td>
<td>18.30</td>
<td>7,611</td>
</tr>
<tr>
<td>Cell #10</td>
<td>21.46</td>
<td>8,926</td>
</tr>
<tr>
<td>Cell #11</td>
<td>7.06</td>
<td>2,936</td>
</tr>
<tr>
<td>Cell #12</td>
<td>28.21</td>
<td>11,733</td>
</tr>
<tr>
<td>Cell #13</td>
<td>5.29</td>
<td>2,200</td>
</tr>
<tr>
<td>Cell #14</td>
<td>21.04</td>
<td>8,751</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>271.12</strong></td>
<td><strong>112,763</strong></td>
</tr>
</tbody>
</table>

4. The total volume of oil and gas waste to be accepted for landtreatment shall be no greater than 112,763 cubic yards or 542,229 BBL.

5. The first landtreatment cell to be constructed and actively receive waste shall be Cell #1. Waste received by the facility shall be offloaded into Cell #1 for treatment and tilled into the native soil until the cell has reached the capacity indicated in Permit Condition V.A.3. After Cell #1 has reached capacity, the cell will no longer receive waste and Cell #2 shall be opened to receive waste. Cell #1 will be closed in
accordance with Permit Condition VIII. Only one cell shall be open to receive waste at any given time. Each cell shall be opened and closed in numerical order.

6. Technical Permitting in Austin and the appropriate RRC District Office shall be notified in writing within 15 days prior to construction of the facility and each treatment cell.

7. A perimeter dike or levee must be constructed to surround the entire Landtreatment Facility. The dike or levee must be keyed into the underlying soil and must be constructed and maintained to a height and width at the base to adequately control and divert run-on from elevated areas adjacent to the landtreatment cells with a slope no steeper than a three to one (horizontal to vertical) ratio on each side.

8. All dikes or levees including both the facility perimeter dike and each individual landtreatment cell dike shall be compacted and constructed of material that meets or exceeds 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density. Each individual landtreatment cell containment dike shall have a minimum height of 3-feet above grade and maintain a slope no steeper than a 3 to 1 (horizontal to vertical) ratio. These structures must be used to divert non-contact storm water around the landtreatment cells and contain and isolate contact stormwater within each lantreatment cell.

9. The interior drainage ditch separating the perimeter dikes and landtreatment cells or each individual landtreatment cell, shall be used to isolate and convey non-contact stormwater throughout the facility and into the two on-site retention ponds. Rip rap will be used to prevent erosion as necessary.

10. Dikes or levees must be constructed to surround each individual landtreatment cell. These dikes or levees must be constructed as illustrated on the individual cell schematic diagrams “Cell #1 Cross Sections” (Sheet 9.3), “Cell #2 Cross Sections” (Sheet 9.5), “Cell #3 & #4 Cross Sections” (Sheet 9.7) and (Sheet 9.8), “Cell #5 Cross Section” (Sheet 9.10), “Cell #6 & #7 Cross Sections” (Sheet 9.12) and (Sheet 9.13), “Cell #8 Cross Section” (Sheet 9.15), “Cell #9 Cross Section” (Sheet 9.17), “Cell #10 Cross Sections” (Sheet 9.19) and (Sheet 9.20), “Cell #11 Cross Section” (Sheet 9.22), “Cell #12 & #13 Cross Sections” (Sheet 9.24) and (Sheet 9.25), and “Cell #14 Cross Section” (Sheet 9.27), which are attached and incorporated into this permit as Permit Appendix C.

11. No waste may be received until the appropriate District Office has verified the construction of the dikes or levees.

12. Off-load ramps must be constructed for entry into each of the landtreatment cells so that the integrity requirements specified in Permit Condition V.A.8 of the dikes are not compromised.

B. OPERATION

1. A freeboard of at least two foot shall be maintained between the level of waste in the landtreatment cells and the top of the cell dike or levee.

2. Prior to waste application, the entire landtreatment area must be thoroughly disked and aerated and may be prepared by the addition of agricultural chemicals or bioaccelerators, if needed.
3. A map drawn to scale of the landtreatment area illustrating the sampling locations within each active cell must be submitted to Technical Permitting with the Quarterly Report corresponding with that period.

4. The waste must be applied to the landtreatment cells in such a manner that the waste will not pool or migrate off the approved landtreatment area or enter any watercourses or drainage ways, including any drainage ditch, dry creek, flowing creek, river, or any other surface water body.

5. The permittee shall ensure that the waste is uniformly dispersed at a total thickness of no greater than 3-inches and fully and evenly incorporated into the top 12-inches of soil. Any active cell must be mixed with the soil and tilled or disked within 24 hours of waste application and monthly thereafter until the cell is closed in accordance with Permit Condition VIII. No waste shall be stockpiled within any landtreatment cell

6. No waste shall be disposed of in the landtreatment cell area during periods of rainfall.

7. Any standing or pooled rainwater, or other liquid, in an “active” landtreatment cell or within the perimeter berm shall be removed within 72 hours and disposed of in an authorized manner.

8. Fertilizer or other stabilizing agents shall be added as required to maintain optimum aerobic C:N:P ratios.

9. Any spills of waste or any other waste related materials shall be promptly containerized and disposed of in an authorized manner.

10. Upon reaching the maximum capacity of each cell and meeting all closure requirements as specified in Permit Condition VIII, the operator may request a permit amendment from Technical Permitting in Austin in order to accept additional waste.

11. The maximum tilling depth shall not exceed 12-inches per waste application.

C. LANDTREATMENT AREA MONITORING REQUIREMENTS

1. For the purposes of monitoring and sampling the soils, the following definitions will be employed:

<table>
<thead>
<tr>
<th>TREATMENT ZONE</th>
<th>ZONE DEPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Treatment Zone (STZ)</td>
<td>Surface to 12 inches</td>
</tr>
<tr>
<td>Waste Treatment Zone (WTZ)</td>
<td>12 inches to 24 inches</td>
</tr>
<tr>
<td>Compliance Monitoring Zone (CMZ)</td>
<td>24 inches to 36 inches</td>
</tr>
</tbody>
</table>

2. For the purposes of sampling, there shall be 1 composite sample for every six acres for each cell and each treatment zone, rounding to the nearest positive integer, i.e. a 6-acre cell would require one composite sample for each zone for a total of three composite samples, and a 24-acre cell would require a total of 12 composite samples.

3. The area representing each composite sample shall be divided into equal subsections. A minimum of one grab sample from each subsection shall be combined into one composite sample. Each sample shall be collected and preserved according to Permit Conditions I.T.

4. Composite samples for each cell and from each zone (STZ, WTZ, and CMZ) shall be analyzed once for baseline levels prior to waste application for the Parameters listed in
Permit Condition V.C.5. This analysis may be used as the initial quarterly report analysis for the newly activated cell and treatment zones.

5. A landtreatment cell is considered “active” once it accepts waste and remains active until it has met the closure requirements listed in Permit Condition VIIA. While a cell is active, the composite samples from each zone be analyzed quarterly. All composite samples shall be analyzed for and shall not exceed the following Parameters:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>6 to 10 s.u.</td>
</tr>
<tr>
<td><em>EPA Method 9045C</em></td>
<td></td>
</tr>
<tr>
<td>Electrical Conductivity (EC)</td>
<td>≤ 4.0 mmhos/cm</td>
</tr>
<tr>
<td>Sodium Adsorption Ratio (SAR)</td>
<td>≤ 12 meq/L / meq/L</td>
</tr>
<tr>
<td>Exchangeable Sodium Percentage (ESP)</td>
<td>≤ 15%</td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbons (TPH)</td>
<td>≤ 1% by mass or</td>
</tr>
<tr>
<td><em>EPA Method 5035A/TX1005</em></td>
<td>≤ 10,000ppm</td>
</tr>
</tbody>
</table>

Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) *EPA Method 5035A/8021/8260B* ≤ 30 mg/kg

Total Metals *EPA Method 6010/6020/7471A* ≤ 10 mg/kg

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Barium</td>
<td>≤ 10,000 mg/kg</td>
</tr>
<tr>
<td>Cadmium</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Chromium (total)</td>
<td>≤ 100 mg/kg</td>
</tr>
<tr>
<td>Lead</td>
<td>≤ 200 mg/kg</td>
</tr>
<tr>
<td>Mercury</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Selenium</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Silver</td>
<td>≤ 200 mg/kg</td>
</tr>
</tbody>
</table>

1 *Louisiana Department of Natural Resources (LDNR) Lab Procedures for Extraction and Analysis of Exploration and Production (E&P) Waste or equivalent.*

6. If any Parameter from a composite sample exceeds its Limitation specified by Permit Condition V.C.5 the area representing the sample shall be tilled, and the area shall be resampled for that specific Parameter. This process shall be performed no less than once per month until the sample does not exceed the Limitation for the specific analyte. If the area representing the sample continues to exceed a Limitation in any Parameter after three months of sampling, the cell is not authorized to accept additional waste until additional sampling meet criteria.

7. More frequent analyses may be required depending on the results of the analyses required by Permit Conditions V.C.4. and V.C.5.

8. The appropriate District Office shall be notified by phone or email at least 48 hours prior to any sampling event.
9. The information required by Permit Conditions V.C.5., and V.C.6., and a summary of that information shall be submitted to Technical Permitting in Austin and the appropriate District Office as part of the Quarterly Report required by Permit Condition I.V. of this permit. The summary shall contain a soil quality table showing dates the samples were collected, the zone of sampling, sampling methods, exact sample locations as well as a map drawn to scale showing the sample locations and the laboratory analytical results and the corresponding chain of custody.

VI. GROUNDWATER MONITORING

A. A total of five (5) groundwater monitor wells must be installed in the vicinity of the Land-Treatment facility as represented on the “General Development Site Plan” (Sheet 9.1) diagram, received June 13, 2016 which is attached to and incorporated into this permit as Permit Appendix A. One additional monitor wells shall be installed in the north-eastern portion of the facility at the coordinates Latitude/Longitude: 32.240518°, -101.684950° prior to the construction of Cell #1.

1. The wells must be completed by a certified water well driller in accordance with 16 TAC Part 4, Chapter 76 (Water Well Drillers and Water Well Pump Installers).

2. The wells must be completed to penetrate the shallowest groundwater zone, and the completion must isolate that zone from any deeper groundwater zone.

3. The screened interval of the wells must be designed to continually intercept at least five feet of the shallowest groundwater zone.

4. Provision must be made to protect the well heads from damage by vehicles and heavy equipment.

5. The wells must be maintained in good condition with a lockable water-tight expansion cap that prohibits unauthorized access.

6. The monitor wells must be maintained to provide a representative sample of the groundwater underlying the site for the duration of facility operations. If a monitor well is not capable of providing a representative sample, the permittee must notify Technical Permitting in Austin and install a replacement monitor well that is acceptable to the RRC.

7. The following information must be submitted after the wells are completed:

   a. A soil boring lithological log for each well, with the soils described using the Unified Soil Classification System (equivalent to ASTM D 2487 and ASTM D 2488). The log must include the method of drilling, well specifications, slot size, riser and screen length, bentonite and cement intervals, total depth, and the top of the first encountered ground water or saturated soils. The sand pack size should be compatible with the well screen slot size, and selected for the local lithology;

   b. A well installation diagram detailing construction specifications for each well;

   c. A survey elevation for each well head reference point (Top of Casing) relative to a real or arbitrary benchmark and mean survey level;

   d. A potentiometric surface map showing static water levels and the estimated groundwater flow direction and the calculated gradient.
B. The groundwater monitor wells must be sampled or monitored for the following Parameters after installation and quarterly thereafter:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static Water Level</td>
<td>Feet (ft.)</td>
</tr>
<tr>
<td>Total Depth</td>
<td>ft.</td>
</tr>
<tr>
<td>Benzene</td>
<td>mg/L</td>
</tr>
<tr>
<td>(EPA Method 8260/8021B or equivalent)</td>
<td></td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbon (TPH)</td>
<td>mg/L</td>
</tr>
<tr>
<td>(Method TX1005)</td>
<td></td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>mg/L</td>
</tr>
<tr>
<td>(Standard Method 160.1 or equivalent)</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>s.u.</td>
</tr>
<tr>
<td>(EPA Method 150.1 or equivalent)</td>
<td></td>
</tr>
<tr>
<td>Solubilized Cations</td>
<td>mg/L</td>
</tr>
<tr>
<td>Calcium, Magnesium, Potassium, and Sodium</td>
<td></td>
</tr>
<tr>
<td>(EPA Method 6020 or equivalent)</td>
<td></td>
</tr>
<tr>
<td>Solubilized Anions</td>
<td>mg/L</td>
</tr>
<tr>
<td>Bromides, Carbonates, Chlorides, Nitrates, and Sulfates</td>
<td></td>
</tr>
<tr>
<td>(EPA Method 300 or equivalent)</td>
<td></td>
</tr>
</tbody>
</table>

C. Copies of the analytical results must be filed with Technical Permitting as part of the Quarterly Report required in Permit Condition I.V. The laboratory analytical reports and the corresponding chain of custody shall be provided for all chemical analyses performed.

VII. STORMWATER MANAGEMENT

A. The facility must be designed and constructed to contain and isolate contact stormwater and prevent run-on of non-contact stormwater. Construction must be consistent with the "STORMWATER MANAGEMENT PLAN" (Sheet 10.14), received February 28, 2017, which is attached to and incorporated into this permit as Permit Appendix D.

B. The perimeter dike, and each berm, or levee must be constructed to surround the entire Landtreatment Facility and maintained to control and divert run-on from elevated areas adjacent to the landtreatment cells. Non-contact stormwater shall be diverted between the landtreatment cells or conveyed between two adjacent cells and allowed to drain into the two on-site retention ponds.

C. A discharge permit from the EPA may be required for non-contact stormwater discharges. If required, the permit from the EPA must be in place prior to commencement of discharge operations.

D. Contact stormwater shall be prevented from migrating outside of any active individual landtreatment cell. The landtreatment cells shall be sloped to facilitate the collection and removal of contact stormwater.
E. Surface flow non-contact stormwater shall be prevented from entering the landtreatment cells. Areas outside of the landtreatment cells shall be sloped to prevent non-contact stormwater from entering the landtreatment cells.

F. Contact stormwater must be collected within 24 hours of accessibility and disposed of in an authorized manner.

G. This permit does not authorize the discharge of any oil and gas waste or any stormwater that has come into contact with oil and gas waste.

H. The internal dikes or levees that separate each individual landtreatment cell shall be used to assist and direct non-contact stormwater throughout the facility into the two on-site retention ponds. Rip rap, rock filter dams and silt fencing shall be installed as needed to prevent erosion.

I. Retention pond #1 is an existing pond located in the south-west corner of the facility which shall be utilized for the purpose of receiving and retaining non-contact stormwater flow from "Watershed #1". Retention pond #2 shall be located in the central and eastern portion of the facility, adjacent to the existing three-foot dike adjacent to the pipeline easement and shall be constructed to retain non-contact stormwater flow from "Watershed #2". Refer to the "Stormwater Management Plan" (Sheet 10.14) graphic received February 28, 2017, which is available and incorporated into this permit as Permit Appendix D.

VIII. FACILITY CLOSURE

A. After reaching the allowable capacity and to achieve closure of each landtreatment cell, all composite samples from each respective landtreatment cell soil horizon shall not exceed any of the Parameter Limitations specified in Permit Condition V.C.5.

B. A summary of the information required by Permit Condition VIII.A. for closure shall be submitted to Technical Permitting in Austin. The summary shall contain a map drawn to scale of the sampling locations, a soil quality table indicating the results of all sampling results, the date of sampling, the zone of sampling, and reference the location from which each sample was taken and the corresponding laboratory analytical results and chain of custody for each individual landtreatment cell sample.

C. When acceptable constituent levels have been verified by Technical Permitting in Austin and soil quality data has met closure criteria, the dikes of the landtreatment cell shall be leveled and the site shall be graded. The topsoil must be contoured and seeded with appropriate vegetation for the geographic region.

D. A summary table demonstrating that each individual landtreatment cell has met its individual allowable capacity.

E. All equipment shall be removed and salvaged, if possible, or disposed of in an authorized manner.

F. Final closure of the landtreatment cells must be accomplished in such a manner that rainfall will properly drain and not collect at each former landtreatment cell location after closure.

G. Technical Permitting in Austin and the appropriate District Office shall be notified in writing at least 15 days prior to commencing closure of the landtreatment facility.

H. The monitoring wells may be plugged and abandoned in an authorized manner once the closure requirements listed in Permit Condition VIII. have been met, and the groundwater quality analyses required in Permit Condition VI.B. demonstrate that no contamination is present, other than a previously identified pre-existing condition, (if applicable), and written
approval from Technical Permitting in Austin is granted for plugging and abandoning the monitor wells.

This authorization is granted subject to review, modification, and cancellation should investigation show that such authorization is being abused.

APPROVED AND ISSUED ON September 6, 2017

Grant Chamblee, P.G., Manager
Environmental Permits and Support
Technical Permitting

cc: RRC - District 08, Midland
    RRC - Reporting Log-Austin
PERMIT APPENDIX A

GENERAL DEVELOPMENT SITE PLAN
(SHEET 9.1)
NOTE:
1. ALL NON-CONTACT STORM WATER WEST OF THE LAKE OFFSET BOUNDARY FLOWS TO THE RETENTION POND #1.
2. ALL NON-CONTACT STORM WATER EAST OF THE LAKE OFFSET BOUNDARY FLOWS TO THE RETENTION POND #2.
3. ALL CONTACT STORM WATER IS CONTAINED WITHIN THE RESPECTIVE CELL BERM.
4. THE MINIMUM LAKE OFFSET DISTANCE IS 1,248'.
PERMIT APPENDIX B

CELL #1 PLAN (Sheet 9.2), Cell #2 Plan (Sheet 9.4), Cell #3 & #4 Plan (Sheet 9.6), Cell # 5 (Sheet 9.9), Cell #6 & #7 Plan (Sheet 9.11), Cell #8 Plan (Sheet 9.14), Cell #9 Plan (Sheet 9.16), Cell #10 Plan (Sheet 9.18), Cell #11 Plan (Sheet 9.21), Cell #12 & #13 Plan (Sheet 9.23), and Cell #14 Plan (Sheet 9.26)
CELL #9
18.30 ACRES

LEGEND

- WATER SPREAD DURING 100-YR EVENT
- EXISTING ROADS TO BE USED
- 2.25' HIGH CONTAINMENT DIKE
  SEE SHEET 9.1 FOR TYPICAL DETAIL
- 2.5' HIGH CONTAINMENT DIKE
  SEE SHEET 9.1 FOR TYPICAL DETAIL
- 2470 - EXISTING CONTOURS

LOWEST TOP OF CONTAINMENT DIKE ELEVATION = 2472.20

15' WIDE ENTRANCE RAMP
W/ 10% SLOPE
(FIELD VERIFY REQUIRED LENGTH & LOCATION)

SEE SHEET 9.17 FOR CROSS-SECTIONS
A=A', B=B' & C=C'

O & G
AUSTIN, TX

JUN 13 2016
CELL #11
7.06 ACRES
PERMIT APPENDIX C

Cell #1 Cross Sections (Sheet 9.3), Cell #2 Cross Sections (Sheet 9.5), Cell #3 & #4 Cross Sections (Sheet 9.7) and (Sheet 9.8), Cell #5 Cross Section (Sheet 9.10), Cell #6 & #7 Cross Sections (Sheet 9.12) and (Sheet 9.13), Cell #8 Cross Section (Sheet 9.15), Cell #9 Cross Section (Sheet 9.17), Cell #10 Cross Sections (Sheet 9.19) and (Sheet 9.20), Cell #11 Cross Section (Sheet 9.22), Cell #12 & #13 Cross Sections (Sheet 9.24) and (Sheet 9.25), and Cell #14 Cross Section (Sheet 9.27)
CELL #4 C-C'

2' FREEBOARD

2.84' (100-YR STORM FREEBOARD)

100-YR FLOOD ELEVATION, 2469.87

DETENTION VOLUME 8.41 AC FT.

HORIZONTAL

SCALE: 1" = 100'

VERTICAL

SCALE: 1" = 10'

ELEV 2473.45

CONTAINMENT DIKE

ELEV 2471.2

ENLARGE VIEW

SCALE: 1" = 5'

CELL #3 D-D' & CELL #4 E-E'

SCALE: 1" = 6'

10:1 SLOPE MAX

TOP OF DIKE

RAMP SLOPE MAX

TOP OF ROAD

CONTAINMENT DIKE

RECEIVED
RGC OF TEXAS
JUN 13 2016
O & G
AUSTIN, TX
CELL #7 C-C'

RECEIVED
RRC OF TEXAS
JUN 13 2016
O & G
AUSTIN, TX

CELL #6 D-D' & CELL #7 E-E'
SCALE: 1" = 8'

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15613 BOSQUE COUNTRY LANE
AUSTIN, TX 78734-2207
ROLL: 1/6/2007
PAGE 1/1
PERMIT APPENDIX D

STORMWATER MANAGEMENT PLAN

(SHEET 10.14)