PERMIT TO RECEIVE, STORE, HANDLE, TREAT AND DISPOSE OF CERTAIN NONHAZARDOUS OIL AND GAS WASTES

Permit Nos. STF-0159,
P012958, P012959, P012960, P012961, P012962,
P012963, P012964, P012965, P012966, P012967,
P012968, P012969, P012970, P012971, P012972,
P012973, P012974, P012975, P012976, P012977 and P012978

R360 ENV SOLUTIONS OF TX LLC
3 WATERWAY SQUARE PLACE STE 550
THE WOODLANDS TX 77380

Based on information contained in the initial application by R360 Env Solutions, LLC, received on January 2, 2020, and subsequent information received to date, you are hereby authorized to receive, store, handle, treat, recycle and dispose of certain oil and gas wastes as specified below at the following facility:

Kermit STF Facility (106 acres)
Block 14, Section 14, HE&WT RR CO Survey, A-660
Latitude, Longitude: 31.499316\textdegree, -101.931524\textdegree
Reeves County, Texas
RRC District 08, Midland

NARRATIVE DESCRIPTION OF PROCESS:

Incoming oil and gas waste may be offloaded at one of several areas of the facility depending on the liquid content and composition of the waste. Fluid wastes are unloaded into the Collecting/Water Management Pit (P-1: P012975), solid wastes that pass a paint filter test (PFT) are unloaded directly into the Disposal Pit (P012958), wastes needing further separation are unloaded into the Collecting/Staging Pits (S-1 to S-6: P012959, P012960, P012961, P012962, P012963 and P012964) and wastes with a low fluid fraction that do not pass a PFT are unloaded into the Collecting/Treatment Pits (T-1 to T-10: P012965, P012966, P012967, P012968, P012969, P012970, P012971, P012972, P012973 and P012974) for further stabilization. Rinsate from the washout of trucks and frac tanks are collected in the Collecting/Washout Pits (WP-1: P012977 and WP-2: P012978) and are conveyed to the Tank Battery or Collecting/Staging Pits for additional separation.
The thermal desorption unit will heat the waste material to burn off liquids and hydrocarbons and separate the solids. Recycled roadbase and recycled product that has passed or is waiting to pass analyticals is stored in the Collecting/Recycled Product Storage Pit (RPSP: P012976) before reuse.

Authority is granted by the Railroad Commission of Texas (RRC) to receive, store, handle, treat, recycle and dispose of certain nonhazardous oil and gas wastes in accordance with 16 Texas Administrative Code (TAC) §3.8 (Statewide Rule 8) and Chapter 4, Subchapter B and is subject to the following conditions:

I. General Permit Conditions

A. The effective date of this permit is April 22, 2020 and expires on April 21, 2025.

B. The permittee may not receive, store, handle, treat, recycle or dispose of oil and gas wastes at the facility until financial security in the amount of $14,554,725.00 is provided for and approved by the RRC for the referenced location. This amount provides financial security for the RRC-permitted facility as specified in this permit.

C. In accordance with 16 TAC § 3.78 the permittee must maintain financial security in the amount of $14,554,725.00, until this facility and all of the above-referenced Permit Nos. have been closed in accordance with this permit and all of the referenced equipment and storage tanks have been emptied and removed. Technical Permitting reserves the right to revise this amount, as necessary. Prior to any modification or expansion 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. No waste may be received at the referenced facility until a restrictive covenant is signed by a representative of the permittee, the landowner, and a representative of the RRC; and the signed document is filed in the Real Property Records Section of Reeves County, Texas, and proof of the filing with Reeves County is submitted to and approved by the RRC.

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

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

G. The facility’s Stormwater Management Plan must be maintained on-site and made available upon request of the RRC.

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

I. Technical Permitting and the Midland District Office must be notified in writing upon final completion of construction of the facility. The permittee may not begin receiving, storing,
handling, treating or disposing of oil and gas waste at the facility until the Midland District Office has performed its inspection of the completed facility and active disposal pit construction and has verified that the facility and disposal pit is constructed in accordance with the application and this permit.

J. Technical Permitting in Austin and the Midland District Office must be notified in writing when construction of the facility is initiated and with the completion of each disposal cell.

K. 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. When construction of the facility is completed, submit the “as-built” plans to be incorporated as part of the permit application.

L. 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 Commission if: (1) the OSSF waste is not commingled with any other oil and gas waste; (2) the system is designed by a Texas registered Professional Engineer or a sewage system installer licensed in the state of Texas; and (3) the construction, operation, and maintenance of the OSSF complies with all applicable local, county, and state requirements.

M. Any deviation from this permit must be approved by amendment from Technical Permitting before implementation.

N. Any soil additives, bio-accelerators or treatment chemicals must be approved by Technical Permitting prior to use at the facility.

O. All chemical laboratory analyses required by 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) and certified by a Texas licensed Professional Engineer.

P. Safety Data Sheets (SDS) must be submitted to Technical Permitting for any chemical or compound proposed to be used in the treatment of waste at the facility. Use of the chemical is contingent upon RRC approval. All chemicals must be stored according to the manufacturer’s specifications.

Q. The permittee must make all records required by this permit available for review and copying during normal business hours upon request of RRC personnel.

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

S. This permit is non-transferable without the consent of the RRC. Any request for transfer of this permit must be filed with Technical Permitting at least 60 days before the permittee wishes the transfer to take place.

T. The permittee must submit a Quarterly Report according to the following:
1. The report must contain applicable information as required in Permit Conditions III.H., IV.K., IV.L., IV.M., VI.C.3., VI.C.4., VII.B.3., IX.F., IX.O., XI.D., and XIV.G.

2. The quarterly reporting periods must 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.

3. The reports must be submitted to Technical Permitting and the Midland District Office no later than the 30th day of the month following each reporting period, or each April 30th, July 30th, October 30th, and January 30th, respectively.

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

5. Data tables presenting volumes or amounts of treated waste must be included.

6. The laboratory analytical reports and the corresponding chain of custody must be provided for all chemical analyses performed.

U. Failure to comply with any provision of this permit shall 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. Authorized Wastes

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

1. Water-based drilling fluids and associated cuttings
2. Oil-based drilling fluids and associated cuttings
3. Tank bottoms from gas plants, crude oil Reclamation Plants, crude oil separation facilities, and crude oil production facilities, which do not exceed 7% in oil content as determined by Standard American Petroleum Institute (API) “shake out” test.
4. Hydraulic fracturing flow back water
5. Formation sands and other solids from saltwater storage tanks or vessels
6. Soils contaminated with produced water, crude oil, or condensate
7. Hydrocarbon, solids, sands and emulsion generated from separators, fluid treatment vessels, and production impoundments
8. Spent filters, filter media, and back wash from produced water
9. Liners from pits that contain exempt oil and gas waste
10. Fluids and associated solids including sand from flowback of oil and gas wells
11. Other non-hazardous wastes generated in association with the exploration, development and production of oil and gas resources subject to the jurisdiction of the RRC

B. No other waste may be disposed of at the facility without written authorization from the RRC.
C. RCRA non-exempt wastes under the jurisdiction of the RRC may be accepted and processed at the facility if analytical results demonstrate that the waste is characteristically non-hazardous. See Permit Condition III.E.

D. No oil and gas Naturally Occurring Radioactive Material (NORM) waste, as defined in 16 TAC §4.603, 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 this facility.

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

F. All waste haulers received at the facility must be currently permitted RRC 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).

III. Waste Testing and Record Keeping Requirements

A. For the purposes of this permit, 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).

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 complies with 25 TAC §289.259, Texas Regulations for Control of Radiation (TRCR Part 46). Manufacturer’s specifications 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 per gram of Radium-226 combined with Radium-228, or 150 picocuries per gram of any other radionuclide. Current calibration records of all NORM screening devices must be maintained on-site and made available to RRC personnel upon request.

C. All waste must pass a Paint Filter Test (EPA Method 9095) prior to interment into a disposal pit. Test results from each Paint Filter Test must be maintained and submitted to Technical Permitting upon request.

D. Prior to receipt at the site, representative samples of waste from commercial oil and gas facilities must be analyzed for either of the parameters listed below and may not exceed the limitation for the respective parameters:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Organic Halides (TOX)</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>(EPA Method 9020B)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>Extractable Organic Halides (EOX)</td>
<td>100 mg/kg</td>
</tr>
<tr>
<td>(EPA Method 9023)</td>
<td></td>
</tr>
</tbody>
</table>
Special authorization for disposal of waste with a TOX/EOX > 100 parts per million may be considered. Authority must be obtained from Technical Permitting prior to receipt of waste.

E. Prior to receipt at the site, a representative sample of any RCRA non-exempt waste or any international waste must be analyzed and may not exceed the limit for the following parameters:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosivity</td>
<td>2.0 – 12.5 standard units (s.u.)</td>
</tr>
<tr>
<td>EPA method 1110A</td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>No materials exhibiting the characteristics of reactivity as defined by RCRA</td>
</tr>
<tr>
<td>EPA method 1010A/ 1020B/ 1030A</td>
<td></td>
</tr>
<tr>
<td>Ignitability</td>
<td>Flash point &lt; 60° C or &lt;140° F</td>
</tr>
<tr>
<td>EPA method 1010A</td>
<td></td>
</tr>
<tr>
<td>Toxicity</td>
<td>No materials exhibiting the characteristics of toxicity as defined by RCRA</td>
</tr>
<tr>
<td>EPA Method 1311, Toxicity Characteristic Leaching Procedure (TCLP)</td>
<td></td>
</tr>
<tr>
<td>Benzene (TCLP)</td>
<td>&lt; 0.5 mg/L</td>
</tr>
<tr>
<td>EPA Method 1311/8260B/ 8021</td>
<td></td>
</tr>
<tr>
<td>Metals (TCLP)</td>
<td></td>
</tr>
<tr>
<td>EPA Method 1311/6010/ 6020/ 7470/ 7471</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Barium</td>
<td>&lt; 100.0 mg/L</td>
</tr>
<tr>
<td>Cadmium</td>
<td>&lt; 1.0 mg/L</td>
</tr>
<tr>
<td>Chromium</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Lead</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Mercury</td>
<td>&lt; 0.2 mg/L</td>
</tr>
<tr>
<td>Selenium</td>
<td>&lt; 1.0 mg/L</td>
</tr>
<tr>
<td>Silver</td>
<td>&lt; 5.0 mg/L</td>
</tr>
</tbody>
</table>

F. 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:

1. Description of the site where the waste was generated, including:
   a. Generator name
   b. Lease name and number and well number(s), or gas ID number(s), or API well number(s); or latitude and longitude coordinates in decimal degrees if waste was not generated on a lease
   c. County
2. Name and RRC permit number of the transporter
3. Volume of waste material received (specify units)
4. Detailed description of the type of waste, including any analysis required by Permit Conditions III.B, III.C., III.D. and III.E. above.

G. The permittee must 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:

1. Date waste is removed and hauled to a disposal facility
2. Name and RRC permit number of the transporter
3. Volume (specify units) of each shipment of waste hauled to a disposal facility
4. Type of waste (basic sediment, water, water-based mud, etc.)
5. Name and permit number of the facility to which the waste was hauled to for disposal

H. A report must be submitted to Technical Permitting in Austin and the Midland District Office as part of the Quarterly Report required in Permit Condition I.T. and must include the following information:

1. A table summarizing all incoming waste, including the following:
   a. Generator name
   b. Lease name and number and well number(s), or gas ID number(s), or American Petroleum Institute (API) well number(s); or latitude and longitude coordinates in decimal degrees if the waste was not generated on a lease
   c. County
   d. Name and RRC permit number(s) of the transporter(s)
   e. Description and total volume (specify units) of waste from each job (for which Permit Conditions III.F.1.a, III.F.1.b., and III.F.1.c are the same)
   f. The total volume of each type of waste material received during the quarter

2. A table summarizing all waste removed from the facility, including the following:
   a. Name and permit number of the disposal facility
   b. Name and RRC permit number(s) of the transporter(s)
   c. Description and total volume (specify units) of waste hauled to the disposal facility
   d. The total volume of each type of waste that leaves the facility for disposal or final disposition during the quarter

3. Copies of all analyses required by Permit Conditions III.B., III.D., and III.E. above

IV. General Facility Design and Maintenance Requirements

A. The general layout and arrangement of the facility must be consistent with the “Site Plan with Distances to Permit Boundary” (Drawing 3) diagram, received on January 2, 2020, which is attached 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. The entire facility must consist of, and is defined by, the following waste management unit designations:

1. Truck Washout Area:
   a. One (1) 500-bbl Gunbarrel Tank
   b. Three (3) 300-bbl Water Tanks
   c. One (1) 300-bbl Oil Tank
   d. Eight (8) Washout Bays
   e. Two (2) Collecting/Washout Pits (WP-1: P012977 and WP-2: P012978)

2. Thermal Area:
   a. One (1) Thermal Desorption Unit
   b. One (1) Collecting/Recycled Product Storage Pit (RPSP: P012976)

3. Six (6) Collecting/Staging Pits (S-1 to S-6: P012959, P012960, P012961, P012962, P012963 and P012964)

4. 10 Collecting/Treatment Pits (T-1 to T-10: P012965, P012966, P012967, P012968, P012969, P012970, P012971, P012972, P012973 and P012974)

5. One (1) Collecting/Water Management Pit (P-1: P012975)

6. One (1) Disposal Pit (P012958) with 10 cells (D-1 to D-10)

D. No waste, treated or untreated, may be placed directly on the ground.

E. All storage tanks, equipment and roll-off boxes must be maintained in a leak-free condition. If inspection of a tank reveals deterioration or leaks, the tank must be repaired before resuming use of the tank.

F. Any spill of waste, chemical, or any other material must be collected and cleaned up within 24 hours and processed or disposed of in an authorized manner.

G. Any chemical used in the 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.

H. Dikes or containment structures must be constructed around all waste management units. All earthen dikes surrounding pits and constructed as perimeter berms must be compacted or constructed of material that meets 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density and meet a permeability of $1 \times 10^{-7}$ cm/sec or less when compacted. During construction, successive lifts should not exceed nine inches in thickness, and the surface between lifts should be scarified to achieve a good seal. Each berm must maintain a slope no steeper than a one to three (vertical to horizontal) ratio, unless constructed of concrete or equivalent material (firewalls). These structures must be used to divert non-contact storm water around the waste management areas and contain and isolate contact storm water within the waste management units. Refer to the stormwater management requirements specified in Permit Condition XII.

I. The facility must maintain security to prevent unauthorized access. Access must be maintained by a 24-hour attendant or a six-foot-high security fence and locked gate
when unattended. Fencing shall be required unless terrain or vegetation prevents vehicle or livestock access except through entrances with lockable gates.

J. No oil may be allowed to accumulate on top of the water or wastes stored in the pits. Any oil on top of any waste liquids must be skimmed off and handled in accordance with RRC rules. Any recovered oil must be recorded and filed as either a Skim Oil/Condensate Report (Form P-18) or a “Letter of Authority Request for Oil Movement” (Form T-1) Letter:

1. A Skim Oil/Condensate Report (Form P-18) must be filed with the RRC every month to record skim oil volumes recovered and sold during the operation of this facility. If no skim oil is recovered for a given month, a (Form P-18) should still be filed with the RRC.

OR

2. An original signed “Letter of Authority Request for Oil Movement” (Form T-1) must initially be submitted on letterhead to Field Operations, Austin, TX, Oil and Gas Division, for every event in which sellable skim oil is recovered and intended to be sold during the operation of this facility. Filing frequency requirements may be redefined after the initial oil movement request has been processed. The request must include:
   a. The time period for which oil movement authority is requested.
   b. The name of the applicant requesting to move the oil.
   c. Volume (barrels) of oil to be moved.
   d. Name and location of the facility which oil will be moved.
   e. Name, address, telephone and fax number of the facility buying the oil to be moved.
   f. Contact person, T-1 permit number and P-5 Operator Number of the oil buyer.
   g. A description of the source(s) of the oil at the facility.

K. Each month an inspection of the entire facility must be performed on all concrete slabs, processing equipment, containment berms, and aboveground storage tanks or vessels for deterioration, leaks and spills. The records of each inspection must be kept on-site and maintained for a period of three (3) years from the date of the inspection. The following must be included in the inspection report and submitted as part of the Quarterly Report required by Permit Condition I.T.:

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 silt fencing/rock filter dams installed to control and modulate run-off to surface waters and indicate whether debris has been removed.

L. Any permitted pit or cell not equipped with a leak detection system (LDS) must be emptied and visually inspected annually for deterioration and leaks. A record of each inspection and photographs of the interior of each pit must be maintained for the life of the pit and must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.T. The Midland District Office must be notified by phone or email at least 48 hours before emptying the pit for inspection. The permittee must maintain a record of when each pit is inspected and the results of the inspection. This record must be maintained by the permittee for the life of the pit.

M. All pits equipped with a LDS must be monitored daily, and the highest volume removed from the LDS during the seven-day period must be reported. The permittee must maintain a record of when the liner, containment berm, and the LDS are inspected and the results of each inspection. Records of LDS monitoring must be submitted in table form within the Quarterly Report required in Permit Condition I.T. The physical record must be maintained by the permittee for the life of the pit. The physical record must be filed with the RRC upon request. The record must include:

1. The date of fluid level measuring
2. The fluid level or volume
3. The volume of fluid removed
4. The electrical conductivity
5. The chloride concentration of the fluids removed

N. The fluid removed from the LDS will be compared to the appropriate allowed volume for each pit, as noted in Permit Conditions V.G.9., V.K.9. and IX.P.

O. If the LDS indicates a liner system failure or if a crack or other failure is detected during inspection, no waste may be added to the pit. The affected component must be replaced or repaired and inspected by the appropriate RRC District Office before use of the pit is resumed.

P. The liner systems must be inspected whenever evidence of a liner leakage arises. If inspection of the liner reveals cracking, a leak or other loss of integrity, all waste must be immediately removed from the pit. No waste may be added to the affected pit until the liner has been replaced or repaired and re-inspected by RRC personnel before resuming use of the pit.

V. Truck Washout Area, Washout Bays, WP-1 and WP-2 (P012977 and P012978), S-1 to S-6 (P012959, P012960, P012961, P012962, P012963 and P012964), T-1 to T-10 (P012965, P012966, P012967, P012968, P012969, P012970, P012971, P012972, P012973 and P012974), Thermal Area, RPSP (P012976) and P-1 (P012975) Construction and Operation

A. The general arrangement of the Truck Washout Area, Washout Bays, WP-1 and WP-2 (P012977 and P012978), RPSP (P012976), S-1 to S-6 (P012959, P012960, P012961, P012962, P012963 and P012964), T-1 to T-10 (P012965, P012966, P012967, P012968, P012969, P012970, P012971, P012972, P012973 and P012974), Thermal
Area, RPSP (P012976) and P-1 (P012975) must be consistent with the diagram provided in Permit Appendix A.

B. A sign must be posted at each pit identifying each pit permit number in letters and numerals at least three inches in height.

C. Liquid waste accumulated within the pits must be removed as needed to maintain freeboard and disposed of in an authorized Class II injection well.

D. The ground surface surrounding the pits must be graded such that all surfaces are sloped to prevent surface flow stormwater from entering.

E. The liner systems must be installed and maintained in accordance with best management and sound engineering practices.

F. Unless otherwise required by conditions of this permit, construction, use, and maintenance of each pit must be in accordance with the information represented on the applications (Form H-11’s) and attachments thereto.

G. TRUCK WASHOUT AREA: WASHOUT BAYS AND WP-1 AND WP-2 (P012977 AND P012978)

1. The construction of the Truck Washout Area, Washout Bays and WP-1 and WP-2 (P012977 and P012978) must be consistent with the “Truck Washout Plan” (Drawing 4) and “Truck Washout Cross Sections” (Drawing 5) diagrams, received on January 2, 2020, which are attached as Permit Appendix B.

2. Use of the pits are limited to the collection of non-hazardous oil and gas wastes as specified in Permit Condition II and rinsate and residual solids from the washout of trucks and frac tanks. No other oil field fluids or oil and gas wastes may be stored or staged in the pits.

3. The Washout Bays must consist of eight (8) unloading bays that are approximately 174 feet by 45 feet and sloped to convey waste to WP-1 and WP-2.

4. At least two (2) feet of freeboard must be maintained between the fluid level in the pits and the top of the pit walls.

5. The floor of the pits must have at least a 1% slope to drain fluids to the sump.

6. The dimensions and capacity of each pit must not exceed the following:

<table>
<thead>
<tr>
<th>PERMIT NO.</th>
<th>PIT NAME</th>
<th>LENGTH (FT)</th>
<th>WIDTH (FT)</th>
<th>DEPTH (FT)</th>
<th>VOLUME (BBL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P012977</td>
<td>WP-1</td>
<td>174</td>
<td>12</td>
<td>6</td>
<td>1,267</td>
</tr>
<tr>
<td>P012998</td>
<td>WP-2</td>
<td>20</td>
<td>9</td>
<td>6</td>
<td>193</td>
</tr>
</tbody>
</table>

7. The Washout Bays must be constructed in accordance with the liner system installation methods included in the application and consist of reinforced concrete at least eight (8) inches thick.

8. The pits must be equipped with a leak detection system consisting of a 60-mil high-density polyethylene (HDPE) secondary liner underlying the concrete. A drainage layer consisting of granular fill on top of 6-oz filter fabric must be installed between the concrete liner and secondary HDPE liner. The liner system must be installed and maintained in accordance with best management and sound engineering practices.
9. The leak detection system must be monitored as required by Permit Condition IV.M. If the leak detection system indicates a possible liner system failure, the liner system must be inspected for deterioration and leaks within 5 days of the detection of the failure. The RRC District Office must be notified by phone or email within 24 hours of detection of the failure. No additional waste may be added to the pit in the event of a failure. After inspection, the identified failed component must be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit. A liner system failure is defined as any of the following:

   a. A leak rate from the primary liner greater than the calculated ALR of 60 gallons per day.

   b. Any failure in the leak detection system or any component thereof.

   c. Any detected damage to or leakage from the secondary liner.

10. Solid waste that accumulates at the bottom of the pits must be removed regularly to maintain freeboard.

H. S-1 TO S6 (P012959, P012960, P012961, P012962, P012963 and P012964)

1. The construction of S-1 to S-6 (P012959, P012960, P012961, P012962, P012963 and P012964), must be consistent with the “Staging Cells Site Plan” (Drawing 8), “Staging Cells West to East Cross Sections” (Drawing 9), “Staging Cells S-1 & S-2 Cross Sections” (Drawing 10), “Staging Cells S-3 & S-4 Cross Sections” (Drawing 11), “Staging Cells S-5 & S-6 Cross Sections” (Drawing 12) and “Staging & Treatment Cells Details” (Drawing 23) diagrams, received on January 2, 2020, which are attached as Permit Appendix C.

2. Use of the pits is limited to the collection of non-hazardous oil and gas waste as specified in Permit Condition II. No other oil field fluids or oil and gas wastes may be stored or staged in the pits.

3. At least two (2) feet of freeboard must be maintained between the fluid level in the pits and the top of the pit walls.

4. The pits must each have dimensions of approximately 306 feet by 91 feet by 7.5 feet deep with dikes at least two (2) feet above the surface and a usable capacity not to exceed 27,348 bbl of waste.

5. The pits must be constructed in accordance with the liner system installation methods included in the application and consist of (from bottom-to-top) a compacted subgrade, overlain with reinforced concrete at least eight (8) inches thick, overlain with a 0.5-inch steel plate.

6. The floor of the pits must have at least a 1% slope to drain fluids to the sump.

7. Solid waste that accumulates at the bottom of the pits must be removed regularly to maintain freeboard.

I. T-1 TO T-10 (P012965, P012966, P012967, P012968, P012969, P012970, P012971, P012972, P012973 and P012974)

1. The construction of T-1 to T-10 (P012965, P012966, P012967, P012968, P012969, P012970, P012971, P012972, P012973 and P012974) must be consistent with the “Staging & Treatment Cells Details” (Drawing 23) diagram provided in Permit Appendix C, and the “Treatment Cells T-1 & T-2” (Drawing 13), “Treatment Cells T-
1 & T-2 Cross Sections" (Drawing 14), “Treatment Cells T-3 & T-4" (Drawing 15), “Treatment Cells T-3 & T-4 Cross Sections” (Drawing 16), “Treatment Cells T-5 & T-6” (Drawing 17), “Treatment Cells T-5 & T-6 Cross Sections” (Drawing 18), “Treatment Cells T-7 & T-8” (Drawing 19), “Treatment Cells T-7 & T-8 Cross Sections” (Drawing 20), “Treatment Cells T-9 & T-10” (Drawing 21) and “Treatment Cells T-9 & T-10 Cross Sections” (Drawing 22) diagrams, received on January 2, 2020, which are attached as Permit Appendix D.

2. Use of the pits is limited to the collection of non-hazardous oil and gas wastes as specified in Permit Condition II for the processing and stabilization of solid wastes prior to interment in the active disposal cell. No other oil field fluids or oil and gas wastes maybe stored or staged in the pit.

3. The dimensions and capacity of each pit must not exceed the following:

<table>
<thead>
<tr>
<th>PERMIT NO.</th>
<th>PIT NAME</th>
<th>LENGTH (FT)</th>
<th>WIDTH (FT)</th>
<th>DEPTH (FT)</th>
<th>VOLUME (BBL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P012965</td>
<td>T-1</td>
<td>500</td>
<td>250</td>
<td>4</td>
<td>35,368</td>
</tr>
<tr>
<td>P012966</td>
<td>T-2</td>
<td>500</td>
<td>250</td>
<td>4</td>
<td>35,368</td>
</tr>
<tr>
<td>P012967</td>
<td>T-3</td>
<td>500</td>
<td>250</td>
<td>4</td>
<td>35,368</td>
</tr>
<tr>
<td>P012968</td>
<td>T-4</td>
<td>500</td>
<td>250</td>
<td>4</td>
<td>35,368</td>
</tr>
<tr>
<td>P012969</td>
<td>T-5</td>
<td>530</td>
<td>250</td>
<td>4</td>
<td>39,993</td>
</tr>
<tr>
<td>P012970</td>
<td>T-6</td>
<td>530</td>
<td>250</td>
<td>4</td>
<td>39,993</td>
</tr>
<tr>
<td>P012971</td>
<td>T-7</td>
<td>560</td>
<td>250</td>
<td>4</td>
<td>42,404</td>
</tr>
<tr>
<td>P012972</td>
<td>T-8</td>
<td>560</td>
<td>250</td>
<td>4</td>
<td>42,404</td>
</tr>
<tr>
<td>P012973</td>
<td>T-9</td>
<td>589</td>
<td>250</td>
<td>4</td>
<td>44,710</td>
</tr>
<tr>
<td>P012974</td>
<td>T-10</td>
<td>589</td>
<td>250</td>
<td>4</td>
<td>44,710</td>
</tr>
</tbody>
</table>

4. The pits must be constructed in accordance with the liner system installation methods included in the application and consist of (from bottom-to-top) a compacted subgrade, overlain with a 60-mil high density polyethylene (HDPE) liner, overlain with three (3) feet of protective soil not composed of waste.

5. The liner system must be inspected for integrity before each waste application.

6. The earthen berms surrounding the pits must be at least four (4) feet in height and must meet the requirements in Permit Condition IV.H.

7. A buffer of two (2) feet must be maintained between the bottom edge of the staged waste in the pit and the pit berms.

8. Any standing or pooled liquids in the pit must be removed within 24 hours of access and disposed of in an authorized manner.

9. The floor of the pits must have at least a 0.5% slope to drain fluids to the low end of the pit.

10. Each pit must be constructed with an earthen ramp to allow vehicle access for waste unloading, processing and removal.
J. RPSP (P012976)

1. The construction of RPSP (P012976) must be consistent with the “Recycled Product Pad Plan View” (Drawing 6) and “Recycled Product Pad Sections” (Drawing 7) diagrams, received on January 2, 2020, which are attached as Permit Appendix E.

2. Use of the pit is limited to the collection of treated and partially treated material awaiting test results for use as roadbase or recycled product. No other oil field fluids or oil and gas wastes may be stored or staged in the pit.

3. The pit must be approximately 126 feet by 51 feet by 10 feet deep with dikes at least three (3) feet above the surface on three sides and a usable capacity not to exceed 1,600 cubic yards of treated and partially treated material.

4. The pit must be constructed in accordance with the liner system installation methods included in the application and consist (from bottom-to-top) a compacted subgrade, overlain by reinforced concrete at least 12 inches thick.

5. A metal wind fence may be attached along the top of the concrete wall. No treated or partially treated material may be stockpiled against the metal wind fence.

6. At least two (2) feet of horizontal and vertical freeboard must be maintained between the edge of the treated or untreated material in the pit and the top of the pit dikes.

7. Any standing or pooled liquids in the pit must be removed within 24 hours of access and disposed of in an authorized manner.

8. The floor of the pits must have at least an 8% slope to drain fluids to the low end of the pit.

9. Material treated for use as roadbase or reusable product (treated aggregate) must be segregated until laboratory results are received and demonstrate that the material meets permit specifications for use.

10. After processing, treated waste for roadbase or reusable product (treated aggregate) must be placed in distinct lots of 800 cubic yards. To maintain adequate segregation of the final treated material until laboratory results are received and demonstrate that the material meets permit specifications for reuse, there must be at least 5 feet of spacing between recyclable product and partially treated waste or untreated waste. Each 800-cubic yard lot of waste used for Process Control sampling must maintain at least 5 feet of spacing from other 800-cubic yard lots. Each 800-cubic yard lot of recyclable product must be labeled with a sign identifying its unique lot identification number and corresponding laboratory analysis number. As compliant test data is received, the words “OK FOR USE” will be placed on the appropriate lot number sign for the compliant lot.

11. No waste, roadbase or reusable product may be stored outside of the pit.

K. P-1 (P012975)

1. The construction of P-1 (P012975) must be consistent with the “Water Management Pond Site Plan” (Drawing 24), “Water Management Pond Cross Sections” (Drawing 25) and “Water Management Pond Details” (Drawing 26) diagrams, received on January 2, 2020, which are attached as Permit Appendix F.

2. Use of the pit is limited to the collection of non-hazardous oil and gas waste as specified in Permit Condition II and the collection of contact stormwater for
processing, staging and evaporation. No other oil field fluids or oil and gas wastes may be stored or staged in the pits.

3. At least two (2) feet of freeboard must be maintained between the fluid level in the pit and the top of the pit walls.

4. The pit must have dimensions of approximately 631 feet by 970 feet by 38 feet deep with a usable capacity not to exceed 2,443,996 bbl of waste.

5. The earthen berms surrounding the pit must be at least two (2) feet in height and meet the criteria specified in Permit Condition IV.H.

6. The pit must be constructed in accordance with the liner system installation methods included in the application and consist of (from bottom-to-top) a compacted subgrade, overlain with a 40-mil HDPE liner, overlain with a 60-mil HDPE liner. A liner anchor trench must be used to key the liner system into the adjacent berm.

7. The pit must be equipped with a LDS, including a 200-mil HDPE drainage layer that extends over the entire pit between the primary and secondary liners to collect any leakage from the primary liner.

8. The floor of the pit must have at least a 1% slope to drain fluids to the sump.

9. The LDS must be monitored as required by Permit Condition IV.M. The Midland District Office must be notified by phone or email within 24 hours of the initial detection of the failure. No additional waste may be added to the pit in the event of a failure. After inspection, the identified failed component must be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit. A liner system failure is defined as any of the following:
   a. A volume withdrawn from the LDS that is greater than 13,100 gallons per day or 1,000 gallons per acre per day (GPAD)
   b. Any failure in the leak detection and return system or any component thereof
   c. Any detected damage to or leakage from the secondary liner

10. If the volume withdrawn from the LDS exceeds the volume stated in Permit Condition V.K.9. for 15 consecutive days or the weekly reported volume exceeds the volume stated in Permit Condition V.K.9. at least once a month for three consecutive months, the Midland District Office and Technical Permitting in Austin must be notified by phone or email within 24 hours of detection of the liner system failure. The operator must immediately initiate the removal of wastes from the pit. When removal of the waste is complete, the operator must notify Technical Permitting in Austin and the Midland District Office in writing.

11. Solid waste that accumulates at the bottom of the pit must be removed regularly to maintain freeboard.

VI. Roadbase Material Process and Final Disposition

Oil and gas waste may be recycled for reuse as roadbase, which may be used on oil and gas leases as lease roads, well pads, or on private roads and county roads with authorization from the respective property owners and county commissioners

A. ROBASE MATERIAL TRIAL RUN
1. The permittee must demonstrate the ability to successfully process at this facility the first 1,000-cubic yard batch of waste before any additional waste may be received or processed.

2. Technical Permitting and the Midland District Office must be notified in writing at least 48 hours before waste processing begins.

3. Samples of the processed waste must be collected, analyzed, and meet the parameter limitations as specified by Permit Condition VI.B.2.

4. One 1,000-cubic yard lot sample composed of a composite of 5 sub-samples obtained at 200 cubic yard intervals must be collected and analyzed for wetting and drying durability by ASTM Method D 559-96, modified to provide that the samples are compacted and molded from finished processed material. Total weight loss after 12 cycles may not exceed 15% of the initial volume.

5. A written report of the Trial Run must be submitted to Technical Permitting within 60 days of receipt of the analyses specified in Permit Condition VI.B.2. The following information must be included:
   a. A summary of the Trial Run and a narrative of the process
   b. The actual volume of waste material processed
   c. Type of waste and description of the waste
   d. The volume and type of stabilization material used
   e. Copies of all chemical and geotechnical laboratory analytical results and chain of custody as required by Permit Conditions VI.A.4. and VI.B.2.

6. The treated waste may not be applied or utilized as roadbase material and no additional waste may be received or processed until Technical Permitting has verified the results and determined that the waste was successfully processed.

B. PROCESS CONTROL FOR ROADBASE MATERIAL

1. Bench scale tests must be performed as needed to determine optimum mixing design. If the composition mixture changes from the material produced during the Trial Run the material must be analyzed for wetting and drying durability by ASTM 559-96, modified to provide samples that are compacted and molded from finished processed material. Total weight loss after 12 cycles may not exceed 15%.

2. A sample of the final treated material must be tested for the parameters listed below for every 800 cubic yards of material produced. Each 800-cubic yard lot sample must be composed of a composite of four sub-samples obtained at 200 cubic yard intervals. Each 800-cubic yard lot sample must be analyzed for the following parameters and must not exceed the specified limitation:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Compressive Strength</td>
<td>ASTM D698, ASTM D1557, TxDOT approved method, or equivalent</td>
</tr>
</tbody>
</table>

DART Reference: [Dart Reference Number]
PARAMETER | LIMITATION
--- | ---
Louisiana Department of Natural Resources (LDNR) Leachate Test Method, 1:4 Solid
Total Chlorides \(^1\) | ≤ 700.00 mg/L
Total Petroleum Hydrocarbons (TPH) \(^1\) | ≤ 100.00 mg/L
pH | 6 – 12.49 standard units (s.u.)
EPA Method 9045 or equivalent
Synthetic Precipitation Leaching Procedure (SPLP) Metals
EPA Method 1312/ 6010/ 6020/ 7471A
Arsenic | ≤ 5.00 mg/L
Barium | ≤ 100.00 mg/L
Cadmium | ≤ 1.00 mg/L
Chromium | ≤ 5.00 mg/L
Lead | ≤ 5.00 mg/L
Mercury | ≤ 0.20 mg/L
Selenium | ≤ 1.00 mg/L
Silver | ≤ 5.00 mg/L
Zinc | ≤ 5.00 mg/L
Benzene (SPLP) | ≤ 0.50 mg/L
EPA Method 1312/ 8021/ 8260B

3. Any material not meeting the parameter limitations must be returned to the mixing cycle, reprocessed, and reanalyzed until it meets the required parameter limitations or must be disposed of in an authorized manner.

C. FINAL DISPOSITION OF ROADBASE MATERIAL

1. Processed material that meets the parameter limitations in Permit Condition VI.B.2 is suitable for use as roadbase material.

2. The following records must be kept at the facility for a period of 3 years from the date of removal for each load of processed roadbase material:
   a. The date the processed material is removed from the facility
   b. The volume of processed material removed from the facility
   c. The identification of the recipient
   d. Documentation that the landowner of the receiving location has approved the use of the processed material on the landowner’s property if used on private property or documentation of approval for use by a county commissioner for the specified county if used on county roads
   e. Documentation that the processed material has met the specifications required by the final user

\(^1\) LDNR Lab Procedures for Extraction and Analysis of Exploration & Production Waste or equivalent
f. Documentation indicating the approximate location where processed material is used (latitude and longitude or county road number)

3. Copies of the laboratory analytical results and chain of custody, demonstrating that the processed material has met the limitations specified in Permit Conditions VI.B.1. and VI.B.2. must be submitted to Technical Permitting as part of the Quarterly Report required in Permit Condition I.T.

4. The oil and gas waste may not be accumulated speculatively. Beginning with the effective date of the permit, and annually thereafter, the amount of waste that is recycled must equal at least 75% by volume of the amount of waste accumulated on the anniversary of the effective date of the permit. The operator must keep records showing the volume of waste on hand as of the effective date of the permit, the amount of waste received during each year from the effective date of the permit, and the amount of waste remaining on each anniversary of the effective date of the permit. A copy of these records must be submitted to Technical Permitting as part of the Quarterly Report required in Permit Condition I.T. and corresponding to the anniversary date of the permit.

VII. Reusable Product (Treated Aggregate) Process and Final Disposition

Oil and gas waste may be recycled for beneficial reuse as treated aggregate, including but not limited to non-load bearing fill material for construction, bulking agents for cement, cover and capping material for landfill components, and berms exclusively at commercial or industrial sites.

A. REUSABLE PRODUCT TRIAL RUN

1. The permittee must perform a Trial Run by demonstrating the ability to successfully process 1,000 cubic yards of solid oil and gas waste at the facility prior to receiving or processing any additional waste.

2. Technical Permitting and the appropriate District Office must be notified in writing at least 72 hours before waste processing begins.

3. Samples of the partially treated waste must be collected and analyzed and must not exceed the parameters specified in Permit Condition VII.B.1.

4. A written report of the Trial Run must be submitted to Technical Permitting and to the appropriate District Office within 60 days of receipt of the analytical requirement in Statewide Rule §4.258 of this title. The following information must be included:
   a. A summary of the Trial Run and a narrative of the process
   b. The actual volume of waste material processed
   c. Type of waste and description of the waste material
   d. The volume and type of stabilization material used
   e. Copies of all chemical and geotechnical laboratory analytical reports and chain of custody for the parameters specified in Permit Condition VII.B.1.

5. No additional waste may be received or processed while the results of the Trial Run are being reviewed by Technical Permitting. Any reusable product produced during the Trial Run may not be used until Technical Permitting has received the Trial Run
report and provides written confirmation that the Trial Run requirement has been fulfilled.

**B. PROCESS CONTROL FOR REUSABLE PRODUCT**

1. A sample of the partially treated waste must be tested for the parameters listed below for the 1,000-cubic yard Trial Run and every 800-cubic yard batch of treated waste produced thereafter. Each 800-cubic yard sample must be composed of a composite of four sub-samples obtained at 200 cubic yard intervals. The 1,000-cubic yard Trial Run will consist of 5 composite samples. Each sample must be analyzed for the following parameters depending on the specific end product:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture Content</td>
<td>&lt; 50% (by weight) or zero free moisture</td>
</tr>
<tr>
<td>ASTM D 2216 or equivalent</td>
<td></td>
</tr>
<tr>
<td>pH 1, EPA Method 9045 or equivalent</td>
<td>6.5 – 9 s.u.</td>
</tr>
<tr>
<td>Electrical Conductivity (EC) 1,2</td>
<td>≤ 8.0 mmhos/cm</td>
</tr>
<tr>
<td>Sodium Adsorption Ratio (SAR) 2</td>
<td>≤ 12 ³</td>
</tr>
<tr>
<td>Exchangeable Sodium Percentage (ESP) 2</td>
<td>≤ 15</td>
</tr>
<tr>
<td>Total Barium 2 - Reuse at Commercial Facility</td>
<td>≤ 100,000 ppm</td>
</tr>
<tr>
<td>LDNR Leachate Test Method, 1:4 Solid 2</td>
<td></td>
</tr>
<tr>
<td>TPH 2</td>
<td>&lt; 10.0 mg/L</td>
</tr>
<tr>
<td>Chlorides 2</td>
<td>≤ 500 mg/L</td>
</tr>
<tr>
<td>Leachable Metals 2</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Barium</td>
<td>≤ 10.0 mg/L</td>
</tr>
<tr>
<td>Cadmium</td>
<td>≤ 0.1 mg/L</td>
</tr>
<tr>
<td>Chromium</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Copper</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Lead</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Mercury</td>
<td>≤ 0.02 mg/L</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Nickel</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Selenium</td>
<td>≤ 0.1 mg/L</td>
</tr>
<tr>
<td>Silver</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Zinc</td>
<td>≤ 5.0 mg/L</td>
</tr>
<tr>
<td>TCLP Benzene</td>
<td>≤ 0.50 mg/L</td>
</tr>
<tr>
<td><strong>EPA Method SW-846/1311/8021/8260B</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

1  In addition to the criteria set forth, E&P waste, when chemically treated (fixated) shall be acceptable as reusable material with a pH range of 6.5 to 12 s.u. and an electrical conductivity of up to 50 mmhos/cm, provided such reusable material passes leachate testing requirements for chlorides and metals.

2  LDNR Lab Procedures for Extraction and Analysis of E&P Waste or equivalent

3  SAR calculated using milliequivalents per liter
2. Any treated waste not meeting the limitations specified in Permit Condition VII.B.1. must be returned to the mixing cycle, reprocessed, and reanalyzed until it meets the required parameter limitations or must be disposed of in an authorized manner.

3. Copies of the laboratory analytical reports and chain of custody demonstrating that the treated waste has met the criteria defined in Permit Condition VII.B.1. must be submitted to Technical Permitting as part of the Quarterly Report required in Permit Condition I.T.

C. FINAL DISPOSITION OF REUSABLE PRODUCT

1. Prior to reuse and distribution of the reusable product at commercial or industrial sites, the applicant must fulfill the following requirements:

2. Complete the Trial Run as specified in Permit Condition VII.A.

3. Demonstrate that the reusable product has met the parameter limits specified in Permit Condition VII.B.1.

4. Once the permit to produce reusable product has been granted, submit a separate application for a Letter of Authority (LOA) to Technical Permitting requesting the application of the reusable product for each specific project/location. The following information must be submitted within the LOA application to reuse the treated material:

   a. Site specific requirements including a map drawn to scale showing the general location of the final disposition of the reusable product with latitude and longitude coordinates for the site location

   b. A description of the purpose for the reusable product (e.g. concrete bulking agent, landfill cover or capping material, treated aggregate, closure or backfill material, berm material, or other construction fill material, etc.)

   c. Estimated volume of reusable product to be used at the location

   d. The time frame needed for the production and application of reusable product volume

   e. Landowner approval for the management and final disposition of the reusable product on-site. If the reusable product is to be used as a concrete bulking agent at a concrete production plant, then written approval from a company officer from the receiving facility or corporation is sufficient.

VIII. Disposal Pit (P012958) Construction

A. The construction of the Disposal Pit (P012958) must be consistent with the "Disposal Cells Full Build-Out Base Liner" (Drawing 54), "Disposal Cells D-1 Base Liner" (Drawing 27), "Disposal Cell D-1 Cover & Cell D-2 Base Liner" (Drawing 28), "Disposal Cells D-1 & D-2 Cross Sections" (Drawing 29), "Disposal Cells D-1 & D-2 Base Liner" (Drawing 30), "Disposal Cell D-1 & D-2 Cover & Cell D-3 Base Liner" (Drawing 31), "Disposal Cells D-1 Through D-3 Cross Sections" (Drawing 32), "Disposal Cells D-1 Through D-3 Base Liner" (Drawing 33), "Disposal Cell D-1 Through D-3 Cover & Cell D-4 Base Liner" (Drawing 34), "Disposal Cells D-1 Through D-4 Cover & Cell D-5 Base Liner" (Drawing 37), "Disposal Cells D-1 Through D-5 Cross Sections"
C. A sign must be posted identifying each disposal pit by name and permit number using letters and numerals at least three inches in height.

D. Earthen berms must be constructed to a minimum height of 3 feet surrounding each disposal cell to prevent surface flow storm water run-on and runoff. The berms must meet the slope and compaction criteria specified in Permit Condition IV.H.

E. The capacity and dimensions of the disposal pits may not exceed the following:

<table>
<thead>
<tr>
<th>PHASE NAME</th>
<th>TOTAL VOLUME (BBL)</th>
<th>TOTAL VOLUME (CU YD)</th>
<th>LENGTH (FT)</th>
<th>WIDTH (FT)</th>
<th>DEPTH (FT)</th>
<th>HEIGHT ABOVE GRADE (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-1</td>
<td>1,385,907</td>
<td>288,196</td>
<td>494</td>
<td>547</td>
<td>39</td>
<td>75</td>
</tr>
<tr>
<td>D-2</td>
<td>3,087,240</td>
<td>641,804</td>
<td>522</td>
<td>666</td>
<td>41</td>
<td>90</td>
</tr>
<tr>
<td>D-3</td>
<td>1,242,515</td>
<td>258,378</td>
<td>694</td>
<td>331</td>
<td>35</td>
<td>94</td>
</tr>
<tr>
<td>D-4</td>
<td>5,410,442</td>
<td>1,125,088</td>
<td>660</td>
<td>481</td>
<td>43</td>
<td>109</td>
</tr>
<tr>
<td>D-5</td>
<td>1,320,723</td>
<td>274,641</td>
<td>662</td>
<td>404</td>
<td>46</td>
<td>109</td>
</tr>
<tr>
<td>D-6</td>
<td>7,145,215</td>
<td>1,485,811</td>
<td>658</td>
<td>566</td>
<td>48</td>
<td>127</td>
</tr>
<tr>
<td>D-7</td>
<td>1,835,021</td>
<td>381,588</td>
<td>529</td>
<td>464</td>
<td>52</td>
<td>124</td>
</tr>
<tr>
<td>D-8</td>
<td>7,506,115</td>
<td>1,560,878</td>
<td>550</td>
<td>623</td>
<td>54</td>
<td>142</td>
</tr>
<tr>
<td>D-9</td>
<td>2,995,799</td>
<td>622,969</td>
<td>610</td>
<td>507</td>
<td>56</td>
<td>130</td>
</tr>
<tr>
<td>D-10</td>
<td>13,593,573</td>
<td>2,826,750</td>
<td>628</td>
<td>713</td>
<td>54</td>
<td>143</td>
</tr>
</tbody>
</table>

F. LINER, LEAK DETECTION AND LEACHATE COLLECTION SYSTEMS FOR DISPOSAL PITS

1. The disposal pits must be constructed in accordance with the liner system installation methods included in the application and consist of (from bottom-to-top) a prepared subgrade, overlain with a 60-mil HDPE secondary liner, overlain with a 60-mil HDPE
primary liner, overlain with two (2) feet of a protective soil layer not composed of waste.

2. The pit must be equipped with a Leachate Collection System (LCS), including 200-mil HDPE drainage layer that covers the entire pit area on top of the primary liner.

3. The pit must be equipped with a LDS, including a 200-mil HDPE drainage layer that extends over the entire pit between the primary and secondary liners.

4. The liner system, the LCS and the LDS must be consistent with the “Disposal Cell Details” (Drawing 58) drawing, received on January 2, 2020, which is attached as Permit Appendix H.

5. The liners, the LCS and the LDS must be installed in accordance with the application, the material manufacturer’s specifications and sound engineering practices.

6. The floor of each disposal pit must have at least a 1% slope to allow fluids to drain to the sump located at the low end of the pit.

G. A liner anchor trench must be used to key the synthetic liners for each pit to their respective berms. The liners must be welded together to create a continuous liner system when the next disposal pit is constructed. The tie-ins and anchor trenches must be consistent with the diagram provided in Permit Appendix H.

H. A permanent liner boundary marker must be installed and maintained on all four sides of the pit that clearly identifies the subsurface liner system weld locations at the land surface.

I. Unless otherwise required by the conditions of this permit, construction, use, maintenance, and closure of the disposal pits must be in accordance with the information represented on the permit application and the attachments thereto.

IX. Disposal Pit (P012958) Operation

A. Only one Disposal Pit Cell may be considered active and accept oil and gas waste at any time.

B. The permittee must not construct or use a disposal pit in a manner that could exceed the financial security required by Permit Condition I.C.

C. All waste must pass a Paint Filter Test (EPA Method 9095) prior to placement in any disposal pit. The waste to be tested must be a representative sample of each load taken to the Disposal Pit.

D. Before the Permittee may begin excavation of the next Disposal Pit Cell in the sequence, the previous Disposal Pit Phase must be filled with waste to almost final grade height, and the exposed side abutting the next pit in the construction sequence must be properly graded and prepared to receive waste. Interim cover must be installed over the final outside slopes of each disposal cell as the next cell is opened. Interim cover must consist of 12 inches of compacted clay that meets a hydraulic conductivity of $1 \times 10^{-7}$ centimeters per second or less and has been compacted to 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density, and must be graded to prevent ponding on top of the cover and inhibit infiltration of liquids into the wastes below.
E. The intermediate cover must be inspected after each storm event and re-compacted as needed to meet the requirements specified in Permit Condition XI.D.

F. After the intermediate cover has been constructed it must be inspected every quarter for erosion, slope stability, and thickness of the cover. The results of each inspection must be submitted as part of the Quarterly Report required in Permit Condition I.T. The physical record must be maintained by the permittee for the life of the pit.

G. The Permittee must contact the Midland District Office to proceed with construction of each Disposal Pit Cell in the sequence and may not begin accepting waste until:

1. The Permittee has received approval from the District Office to begin accepting waste in next Disposal Pit Cell in the sequence.

2. Waste is no longer being accepted in the previous Disposal Pit Cell and the intermediate cover is almost completed.

H. At least 2 feet of horizontal freeboard must always be maintained between the edge of waste in the active disposal pit and the top of the pit dikes.

I. Prior to the Disposal Pit Cell accepting waste above grade, the waste collected below grade must be stabilized, compacted and maintained to prevent collapse of the structure, and must not have side slopes steeper than a 1-to-3 (vertical-to-horizontal) ratio.

J. Once the Disposal Pit Cell begins to accept waste above grade, the pit freeboard (buffer) must be constructed and maintained to contain all contact stormwater that may be generated during a 25-year, 24-hour storm event for Reeves County.

K. At least two (2) feet of horizontal freeboard must be maintained between the edge of the waste in the active disposal pit and the top of the pit dikes.

L. Prior to each Disposal Pit Cell accepting waste above grade, the waste collected below grade must be stabilized, compacted and maintained to prevent collapse of the structure and must not have side slopes steeper than a one-to-three (vertical-to-horizontal) ratio.

M. Once the waste height exceeds 50 feet, the side slopes may not exceed a one-to-four (vertical-to-horizontal) ratio.

N. No freestanding fluids may accumulate in any disposal pit except for areas designed to contain contact stormwater. Any fluids must be removed within 72 hours of discovery and disposed of in an authorized manner.

O. The LDS must be monitored as required by Permit Condition IV.M. Records of leak detection system monitoring must be submitted in table form within the Quarterly Report required in Permit Condition I.T. The physical record must be maintained by the permittee for the life of the pit. The physical record must be filed with the RRC upon request.

P. If the LDS indicates a possible liner system failure, the liner system must be inspected for deterioration and leaks within five days of the detection of the failure. The Midland District Office must be notified by phone or email within 24 hours of detection of the failure. No additional waste may be added to the affected Disposal Pit(s) in the event of a failure. After inspection, the identified failed component must be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit(s). A liner system failure is defined as any of the following:
1. A volume withdrawn from the LDS that is greater than:

<table>
<thead>
<tr>
<th>PHASE NAME</th>
<th>AREA (ACRES)</th>
<th>VOLUME (GPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-1</td>
<td>5.49</td>
<td>549</td>
</tr>
<tr>
<td>D-2</td>
<td>6.65</td>
<td>665</td>
</tr>
<tr>
<td>D-3</td>
<td>4.89</td>
<td>489</td>
</tr>
<tr>
<td>D-4</td>
<td>6.54</td>
<td>654</td>
</tr>
<tr>
<td>D-5</td>
<td>5.56</td>
<td>556</td>
</tr>
<tr>
<td>D-6</td>
<td>7.76</td>
<td>776</td>
</tr>
<tr>
<td>D-7</td>
<td>5.30</td>
<td>530</td>
</tr>
<tr>
<td>D-8</td>
<td>7.48</td>
<td>748</td>
</tr>
<tr>
<td>D-9</td>
<td>6.58</td>
<td>658</td>
</tr>
<tr>
<td>D-10</td>
<td>8.80</td>
<td>880</td>
</tr>
</tbody>
</table>

2. Any failure in the leak detection and return system or any component thereof.

3. Any detected damage to or leakage from the secondary liner.

Q. Leachate collected in the leachate collection sump must be removed through the leachate removal pipe and disposed of in an authorized manner.

R. The RRC reserves the right to require necessary design modifications prior to capping and closure to ensure that the waste is stabilized above grade. Prior to receiving waste at 50-foot intervals above grade, a stabilization geotextile may be required to provide increased tensile strength to stabilize the compacted waste.

S. The permittee must notify the Midland District Office and Technical permitting in Austin each time the waste height exceeds the 50-foot interval above grade.

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

X. Disposal Pit (P012958) Closure and Capping

A. Final closure and capping for the Disposal Pit must be consistent with the application details and the “Disposal Cell Full Build-Out Cover” (Drawing 55) and “Disposal Cells Full Build-Out Cross Sections” (Drawing 56) diagrams, received on January 2 2020, which are attached as Permit Appendix I.

B. Once all Disposal Pit Cells have reached the permitted capacity:

1. Waste material in the disposal pit must be compacted and stabilized so that the structure will not fail, slump or erode. The RRC reserves the right to require necessary design modifications to increase tensile strength prior to capping and closure to ensure that the waste is stabilized above grade.

2. Waste material in the disposal pit must be graded, stabilized, compacted and contoured so that rainwater will not collect on top of the pit.
3. The final cap must consist of (from bottom-to-top) 12 inches of intermediate cover, overlain by 12 inches of compacted clay, overlain by a 40-mil HDPE liner, overlain by a 200-mil drainage layer, overlain by 18 inches of soil cover seeded with appropriate vegetation for the region.

C. Unless otherwise required by conditions of this permit, final closure of the disposal pits must be consistent with the details as presented in the application. Any modification to the closure or final capping for the Disposal Pit must be submitted and approved by Technical Permitting prior to the modification occurring.

XI. Groundwater Monitoring

A. At least three (3) groundwater monitor wells must be installed, maintained and routinely sampled at the facility. The monitor wells are to be installed at the locations designated on the diagram provided in Permit Appendix A. The following provisions must be met for each well:

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 and 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 intercept at least five feet of groundwater.
4. Provision must be made to protect the well heads from damage by vehicles and heavy equipment.
5. The wells must be watertight at the surface and fitted with a lockable watertight expansion cap.
6. The following information must be submitted after the wells are completed:
   a. A soil boring lithologic log for the well, with the soils described using the Unified Soil Classification System (equivalent to ASTM D 2487 and 2488). The log must also 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 water or saturated soils. The sand pack size should be compatible with well screen and slot size, as well as the local lithology.
   b. A well installation diagram for each well detailing construction specifications for each well, including riser and screen length, screen slot size, bentonite and cement intervals. The sand pack size should be compatible with the well screen slot size and the local lithology.
   c. A survey elevation for each well head reference point (top of casing) relative to a real or arbitrary on-site benchmark and relative to mean sea level.
   d. A potentiometric contour map showing static water levels and the estimated direction of groundwater flow and the calculated gradient.

B. The groundwater monitor wells must be able to provide a sample that is representative 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. Additional groundwater monitoring wells may be required with future site development.

C. 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>pH</td>
<td>s.u.</td>
</tr>
<tr>
<td>EPA Method 150.1, 150.2, or equivalent</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>TPH</td>
<td>mg/L</td>
</tr>
<tr>
<td>Method TX1005</td>
<td></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>Soluble Cations:</td>
<td>mg/L</td>
</tr>
<tr>
<td>Calcium, Magnesium, Potassium, and Sodium</td>
<td></td>
</tr>
<tr>
<td>EPA Method 6010/6020 or equivalent</td>
<td></td>
</tr>
<tr>
<td>Soluble Anions:</td>
<td>mg/L</td>
</tr>
<tr>
<td>Bromides, Carbonates, Chlorides, Nitrates, and Sulfates</td>
<td></td>
</tr>
<tr>
<td>EPA Method 300/9056 or equivalent</td>
<td></td>
</tr>
</tbody>
</table>

D. Copies of the monitoring-well gauging and sampling event data must be filed quarterly with Technical Permitting and the appropriate District Office as part of the Quarterly Report required in Permit Condition I.T. The laboratory analytical reports and the corresponding chain of custody must be provided for all chemical analyses performed.

E. If any of the parameters listed in Permit Condition XI.C. show potential impacts from operations at facility or if a liner system failure as defined under Permit Condition IX.P. occurs, Technical Permitting reserves the authority initiate an appropriate sampling frequency.

XII. Stormwater Management

A. The facility must be designed and constructed to capture, contain, and isolate contact stormwater and prevent run-on of non-contact stormwater. The construction of the stormwater management structures must be consistent with the diagram provided in Permit Appendix A.
B. Berms and other containment structures must be constructed around all waste management units and storage areas. These structures must be used to divert non-contact stormwater around the waste management areas, and isolate and contain contact stormwater within the waste management units.

C. All above-ground storage tanks must be contained within dikes. Dikes must be constructed and maintained at a minimum to contain the largest tank’s maximum capacity, plus freeboard to contain a 25-year, 24-hour storm event volume for Reeves County.

D. Contact stormwater must be contained within each active waste management unit. All contact stormwater must be removed and disposed of in an authorized manner.

E. Contact stormwater must be prevented from migrating outside of the waste processing and storage areas. The facility must be sloped to facilitate the separation of contact and non-contact stormwater.

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

G. If contact stormwater enters a non-contact stormwater retention pond the permittee must submit a written report detailing the event to Technical Permitting in Austin before disposing of the contents of the pond. Contact stormwater must be removed and disposed of in an authorized manner.

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

I. 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.

XIII. Facility Closure

A. Technical Permitting and the Midland District Office must be notified in writing at least 45 days prior to commencement of all facility closure activities. Technical Permitting must be notified if any changes will be made to the closure plan.

B. At facility closure, all waste, chemicals, and waste-related materials must be processed and removed from the facility for authorized reuse or disposed of in an authorized manner.

C. All processing equipment, above-ground storage tanks, and any other non-maintenance related equipment must be cleaned and removed from the facility. The contents of all tanks, vessels, pits, or other containers must be disposed of in an authorized manner.

D. Provisions must be taken to prevent erosion both during and following site closure.

E. Excluding the Disposal Pits and the non-contact stormwater retention pond, the entire facility must be backfilled as necessary, contoured to original grade and re-vegetated as appropriate for the geographic region.

F. Closure of the Truck Washout Area, Washout Bays, WP-1 and WP-2 (P012977 and P012978), S-1 to S-6 (P012959, P012960, P012961, P012962, P012963 and P012964), T-1 to T-10 (P012965, P012966, P012967, P012968, P012969, P012970, P012971,
P012972, P012973 and P012974), Thermal Area and RPSP (P012976) must be as follows:

1. The pits must be dewatered, emptied, demolished, backfilled, compacted, and properly closed. All wastes, including clay or synthetic liners, must be removed and disposed of in an authorized manner.

2. The concrete areas, pits, concrete pads, washout bays and access roads must be cleaned and demolished, and the concrete rubble and wash-water must be disposed of in an authorized manner. All visually contaminated soils must be excavated and removed. The contaminated soil must be disposed of in an authorized manner.

3. Once waste removal is completed, a soil sampling plan must be submitted to Technical Permitting to characterize the scope of contamination (if any) at the facility. After the removal of wastes, composite soil samples must be taken comprised of a minimum of four representative soil samples per former pit location, and five representative soil samples per acre. Samples must be taken from around and underneath each pit and processing area.

4. Soil samples must be analyzed for the parameters listed in Permit Condition XIII.G., and the specified limitations must not be exceeded.

5. Any soil sample that exceeds the parameter limitations specified in Permit Condition XIII.G. is considered waste and must be disposed of at an authorized disposal facility.

G. Soil samples must be analyzed for the following parameters and not exceed the corresponding constituent limitations:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>6 to 10 standard units</td>
</tr>
<tr>
<td><strong>EPA Method 9045C</strong></td>
<td></td>
</tr>
<tr>
<td>Electrical Conductivity (EC)</td>
<td>≤ 4.0 mmhos/cm or background, if established</td>
</tr>
<tr>
<td><strong>Louisiana Dept. of Natural Resources Lab Procedures for Analysis of Exploration &amp; Production Waste or equivalent</strong></td>
<td></td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbon (TPH)</td>
<td>≤ 10,000 mg/kg or 1% by weight</td>
</tr>
<tr>
<td><strong>Method 5035A/TX1005</strong></td>
<td></td>
</tr>
<tr>
<td>Total Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)</td>
<td>≤ 30 mg/kg</td>
</tr>
<tr>
<td><strong>EPA Method 5035A/8021/8260B</strong></td>
<td></td>
</tr>
<tr>
<td>Metals (Total)</td>
<td></td>
</tr>
<tr>
<td><strong>EPA Method 6010/6020/7471A</strong></td>
<td></td>
</tr>
<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</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>
</tbody>
</table>
H. A summary of the soil sampling required by Permit Condition XIII.F.3. must include:
   1. A map drawn to scale with coordinates of the sampling locations
   2. A table indicating the results of the parameters sampled
   3. The date of sampling
   4. The approximate depth of the sample below land surface
   5. Copies of the laboratory analytical reports and chain of custody

I. Once the results of the closure activities have been approved by the RRC, all pits, excluding the Disposal Pits, must be dewatered, emptied, demolished, backfilled and compacted within 120 days of final cessation of use of each pit. Final surface grading of the pits and the storage tank battery areas must be accomplished in such a manner that rainfall will not collect at these former locations. Upon final closure, the Midland District Office and Technical Permitting in Austin must be notified in writing.

XIV. Post-Closure Care and Monitoring

A. In accordance with 16 TAC § 3.78 the permittee must maintain financial security in the amount of $252,500.00 after the facility has stopped receiving waste and met all specified closure requirements. Technical Permitting reserves the right to revise this amount, as necessary. Prior to closure, an updated post-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 before the operating financial security referenced in Permit Condition I.C. will be released.

B. The site will be monitored for a period of no less than five years after closure of the facility.

C. Any areas showing signs of erosion or instability must be repaired, contoured, backfilled, and reseeded as necessary.

D. Once the facility is no longer in operation, the stormwater must be handled in a manner that is consistent with the information submitted with the application.

E. Post-closure care must include quarterly inspections of the entire facility by a Texas registered Professional Engineer for signs of deterioration and erosion.

F. The LDS and the leachate collection system for the Disposal Pits must be maintained and monitored at least quarterly. Any leachate detected must be removed and disposed of in an authorized manner.

G. A summary of the results of the post-closure monitoring activities must be submitted to Technical Permitting in Austin as part of a Quarterly Report required in Permit Condition I.T.

H. The permittee must request in writing permission to cease post-closure monitoring. Post-closure monitoring requirements may be extended by Technical Permitting based on the monitoring results.

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver</td>
<td>≤ 200 mg/kg</td>
</tr>
</tbody>
</table>
This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

APPROVED AND ISSUED ON April 22, 2020

Tiffany Humberson, Manager
Environmental Permits & Support
Technical Permitting

Attachments: Appendices A through I

cc: RRC – District 08, Midland
    RRC – Production Audit, Austin
PERMIT APPENDIX A

Site Plan with Distances to Permit Boundary
(Drawing 3)
PERMIT APPENDIX B

Truck Washout Plan
(Drawing 4)

Truck Washout Cross Sections
(Drawing 5)
PERMIT APPENDIX C

Staging Cells Site Plan  
(Drawing 8)

Staging Cells West to East Cross Sections  
(Drawing 9)

Staging Cells S-1 & S-2 Cross Sections  
(Drawing 10)

Staging Cells S-3 & S-4 Cross Sections  
(Drawing 11)

Staging Cells S-5 & S-6 Cross Sections  
(Drawing 12)

Staging & Treatment Cells Details  
(Drawing 23)
CONCRETE NOTES:

SUBGRADE PREPARATION:
- A minimum of 2' of soil underlying liner system to be compacted to a minimum of 90% of the maximum dry density for the standard proctor.

CONCRETE:
- Minimum 28-Day Compressive Strength of 4500 PSF.
- Float finish with sealant.
- 5%-8% Air Entrainment

REINFORCING:
- 6" thick concrete to be reinforced with 2 mats of #5 rebar at 12" c.c. each way.
- Reinforcing to be ASTM A615 Deformed Grade 50 Steel.
PERMIT APPENDIX D

Treatment Cells T-1 & T-2  
(Drawing 13)

Treatment Cells T-1 & T-2 Cross Sections  
(Drawing 14)

Treatment Cells T-3 & T-4  
(Drawing 15)

Treatment Cells T-3 & T-4 Cross Sections  
(Drawing 16)

Treatment Cells T-5 & T-6  
(Drawing 17)

Treatment Cells T-5 & T-6 Cross Sections  
(Drawing 18)

Treatment Cells T-7 & T-8  
(Drawing 19)

Treatment Cells T-7 & T-8 Cross Sections  
(Drawing 20)

Treatment Cells T-9 & T-10  
(Drawing 21)

Treatment Cells T-9 & T-10 Cross Sections  
(Drawing 22)
PERMIT APPENDIX E

Recycled Product Pad Plan View
(Drawing 6)

Recycled Product Pad Sections
(Drawing 7)
PERMIT APPENDIX F

Water Management Pond Site Plan
(Drawing 24)

Water Management Pond Cross Sections
(Drawing 25)

Water Management Pond Details
(Drawing 26)
INSTALL 8 OZ FABRIC TO CONTAIN SOIL IN PIPE TRENCH

SOIL BACKFILL
SEPARATE SOIL FROM GEONET BY WRAPPING SOIL IN 8 OZ FABRIC, TRENCH DIGGED ALONG THE TOP OF THE PIPE

60-MIL TEXTURED HOPE LINER
GEONET
40-MIL TEXTURED HOPE LINER

18" SOR-11 HOPE PIPE
PREPARED SUBGRADE
60-MIL TEXTURED HOPE LINER
GEONET

60-MIL HOPE LINER
60-MIL HOPE LINER
40-MIL HOPE LINER (TEXTURED)
GEONET

8.25' MN
10' (WDL)

ANCHOR TRENCH BACKED WITH COMPACTED FILL
60-MIL HOPE LINER
(SAND)

PREPARED SUBGRADE
60-MIL HOPE LINER
(SAND)

NOTE
1. LEACHATE COLLECTION PIPE AND LEAK DETECTION PIPE WILL TERMINATE IN IDENTICAL FASHION.
2. ALL LEAK DETECTION AND LEACHATE COLLECTION RISERS TO EXTEND FROM SIDE OF SLOPE OF CELL TILL THEY ARE A MINIMUM OF 18" ABOVE THE NATURAL GRADE.

WATER MANAGEMENT POND SUMP DETAIL
WATER MANAGEMENT POND SUMP RISER DETAIL
WATER MANAGEMENT POND LINER PROFILE

SCALE IN FEET

2019 PERMIT APPLICATION
WATER MANAGEMENT POND DETAILS
KERMIT FACILITY
WINKLER COUNTY, TEXAS
WWW.WCCRG.COM
DRAWING 26
PERMIT APPENDIX G

Disposal Cells Full Build-Out Base Liner
   (Drawing 54)

Disposal Cells D-1 Base Liner
   (Drawing 27)

Disposal Cell D-1 Cover & Cell D-2 Base Liner
   (Drawing 28)

Disposal Cells D-1 & D-2 Cross Sections
   (Drawing 29)

Disposal Cells D-1 & D-2 Base Liner
   (Drawing 30)

Disposal Cell D-1 & D-2 Cover & Cell D-3 Base Liner
   (Drawing 31)

Disposal Cells D-1 Through D-3 Cross Sections
   (Drawing 32)

Disposal Cells D-1 Through D-3 Base Liner
   (Drawing 33)

Disposal Cell D-1 Through D-3 Cover & Cell D-4 Base Liner
   (Drawing 34)
Disposal Cells D-1 Through D-4 Cross Sections
(Drawing 35)

Disposal Cells D-1 Through D-4 Base Liner
(Drawing 36)

Disposal Cell D-1 Through D-4 Cover & Cell D-5 Base Liner
(Drawing 37)

Disposal Cells D-1 Through D-5 Cross Sections
(Drawing 38)

Disposal Cells D-1 Through D-5 Base Liner
(Drawing 39)

Disposal Cell D-1 Through D-5 Cover & Cell D-6 Base Liner
(Drawing 40)

Disposal Cells D-1 Through D-6 Cross Sections
(Drawing 41)

Disposal Cells D-1 Through D-6 Base Liner
(Drawing 42)

Disposal Cell D-1 Through D-6 Cover & Cell D-7 Base Liner
(Drawing 43)

Disposal Cells D-1 Through D-7 Cross Sections
(Drawing 44)

Disposal Cells D-1 Through D-7 Base Liner
(Drawing 45)

Disposal Cell D-1 Through D-7 Cover & Cell D-8 Base Liner
(Drawing 46)

Disposal Cells D-1 Through D-8 Cross Sections
(Drawing 47)

Disposal Cells D-1 Through D-8 Base Liner
(Drawing 48)
Disposal Cell D-1 Through D-8 Cover & Cell D-9 Base Liner
(Drawing 49)

Disposal Cells D-1 Through D-9 Cross Sections
(Drawing 50)

Disposal Cells D-1 Through D-9 Base Liner
(Drawing 51)

Disposal Cell D-1 Through D-9 Cover & Cell D-10 Base Liner
(Drawing 52)

Disposal Cells D-1 Through D-10 Cross Sections
(Drawing 53)
PERMIT APPENDIX H

Disposal Cell Details
(Drawing 58)
PERMIT APPENDIX I

Disposal Cell Full Build-Out Cover  
(Drawing 55)

Disposal Cells Full Build-Out Cross Sections  
(Drawing 56)