RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

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

AMENDED

Permit No. STF-0126, R9 08-1705,
Collecting/Receiving Pits (P012576, P012577, P012590, and P012591);
Disposal Pits (P012586, P012587, P012588 and P012589)
Supersedes permit dated
July 31, 2018

BUCHANAN OILFIELD SERVICES LLC
PO BOX 10460
MIDLAND TX 79702

Based on information contained in the original application from Amrich Operating LLC received on July 6, 2017, the supplemental application and transfer request submitted by Buchanan Oilfield Services LLC received on August 23, 2017, the amendment request from Buchanan Oilfield Services LLC received on January 4, 2019 and subsequent information received to date, you are hereby authorized to receive, store, handle, treat, reclaim or dispose of certain oil and gas wastes as specified below at the following facility:

Midland SWD/Sludge and Disposal Facility
Latitude, Longitude: 31.973278°, -101.8795027°
Midland County, Texas
RRC District 08, Midland

NARRATIVE DESCRIPTION OF PROCESS:

Incoming oil and gas “heavy” wastes will be offloaded into Collecting/Receiving Pit (P012577), via a closed loop system. The wastes will be conveyed and actively separated through slurry tanks and heated centrifuges; then the separated solids will be sent to the filter press and staged in roll-off boxes. Incoming solid waste material will be subjected to a paint filter test to determine if further processing is required prior to placement in the active on-site disposal pits. Solids that require stabilization will be offloaded onto Collecting/Drying Pit P012591 for dewatering and once the material passes the paint filter test it will be placed in the active on-site Disposal Pit (P012586, P012587, P012588 and/or P012589).
The incoming and separated fluid wastes and the filtrate from the filter press will be pumped to the hydro-cyclones, settling tanks, separators, and surge tanks for further processing. The Collecting Pit **P012576** will be utilized for storage of excess fluid wastes generated during the separation process. Collecting Pit **P012590** will store contact stormwater, wastes from washing operations, and other liquid wastes generated at the site prior to off-site disposal in an authorized well.

Authority is granted by the Railroad Commission of Texas (RRC) to receive, store, handle, treat, reclaim, or dispose of certain nonhazardous oil and gas wastes in accordance 16 Texas Administrative Code (TAC) §3.57 (Statewide Rule 57) and TAC, §3.8 (Statewide Rule 8) and is subject to the following conditions:

**I. GENERAL PERMIT CONDITIONS**

A. The effective date of this permit is **January 30, 2019** and expires on **July 30, 2023**.

B. The permittee may not receive, store, handle, treat, reclaim or dispose of oil and gas wastes at the facility until financial security in the amount of **$3,253,566.00** is provided for and approved by the RRC for the referenced location. This amount provides financial security for the RRC permitted waste storage and treatment units as specified in this permit.

C. In accordance with 16 TAC § 3.78 the permittee shall maintain financial security in the amount of **$3,253,566.00** until this facility and all of the referenced Permit Nos: **STF-0126, R9 08-1705**, Disposal Pits **P012586** (#1), **P012587** (#2), **P012588** (#3), **P0012589** (#4); Collecting/Receiving Pit (**P012577**); Collecting/Drying Pit (**P012591**); and Collecting Pits (**P012576** and **P012590**) 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 Midland County, Texas, and proof of the filing with Midland County is submitted to and approved by the RRC.

E. No waste may be received at the referenced facility until the groundwater monitoring wells required by Permit Condition XI. have been completed, developed and sampled. The documentation required by Permit Conditions XI.A. and XI.B. must be provided to and approved by Technical Permitting **within 30 days** after installation of the 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 shall be maintained on-site and made available upon request of the RRC.

H. A discharge permit from the Environmental Protection Agency (EPA) may be required for non-contact storm water discharges. If required, the permit from the EPA must be in place prior to commencement of discharge operations.

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

J. The permittee may not begin receiving, storing, handling, treating, reclaiming, or disposing of oil and gas waste at the facility until all necessary air permits or exemptions (if any) are obtained from the Texas Commission on Environmental Quality (TCEQ).

K. Technical Permittting in Austin 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, reclaiming, or disposing of oil and gas waste until the appropriate District Office has performed its inspection of the completed facility and has verified that the facility is constructed in accordance with the application and this permit.

L. 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 pit.

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

N. The “Application For Permit To Operate A Reclamation Plant” (Form R-9), which is attached and incorporated into this permit as Permit Appendix A, grants authority for the active reclaiming of oil field related hydrocarbons and does not cover reclamation of any refined products. Commingling or blending of refined products with crude oil or condensate is not permitted unless written authority is granted by the RRC’s Director of Field Operations following a formal written request for such blending by the Reclamation Plant operator. Any deliveries made containing products or crude blended with products must be clearly identified on the RRC Form R-2 as “Products” or “Crude Blended with Products.”

O. The removal of tank bottoms or other hydrocarbon wastes from the facility for which monthly reports are not filed with the RRC must be authorized in writing by the RRC prior to such removal. A written request for such authorization must be sent to Technical Permitting in Austin, and must detail the location, description, estimated volume, and specific origin of the material removed, as well as the name of the reclaimers and intended destination of the material.
P. The receipt of any tank bottoms or other hydrocarbons wastes from outside the State of Texas must be authorized in writing by the RRC prior to such receipt. Written approval is not required if another regulatory entity with jurisdiction over the waste will indicate, in the appropriate monthly report, a corresponding delivery of the same material.

Q. 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 Professional Engineer registered in the state of Texas 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.

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

S. Any soil additives, stabilizers, bioaccelerators or treatment chemicals must be approved by Technical Permitting prior to use at the facility.

T. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or compound proposed to be used in the treatment of waste at the facility. Use of the compound is contingent upon RRC approval. All chemicals must be stored according to the manufacturer’s specifications.

U. 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) and certified by a Texas licensed Professional Engineer.

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

W. 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.

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

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

1. The report shall contain applicable information as required in Permit Conditions III.J., IV.K., V.G.8., VI.I., VII.I., IX.B., IX. J., XI.C., and XIV.H.
2. 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.

3. The reports shall be submitted to Technical Permitting in Austin and the appropriate 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 shall 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 shall be included.

6. Data tables presenting volumes or amounts of treated waste received and interred into each pit shall be included.

7. Laboratory analytical reports and the corresponding chain of custody as specified in Permit Conditions III.E., and III.F. shall be included.

Z. Failure to comply with any provision of this permit may be cause for modification, suspension, termination or cancellation of this permit in accordance with 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, reclaim, process, 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. Contaminated soils from crude oil spills, pipeline, and saltwater spills;

4. Formation sands and other solids from saltwater storage tanks or vessels and saltwater pits;

5. Solid waste from gas dehydration and sweetening (spent filters and filter media, molecular sieves, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber sludge);

6. Production tank bottoms, which do not exceed 7% in oil content as determined by a Standard API Shakeout. Production tank bottoms exceeding 7% in oil content may be accepted if they first undergo onsite oil reclamation prior to being disposed of in a disposal pit;

7. Waste solids resulting from crude oil reclamation; and
8. Slop oil (waste crude oil from primary field operations and production).

B. No other waste may be accepted at this facility.

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.F.

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 to handle, 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 RRC permitted Oil and Gas Waste Haulers and must have the subject facility listed as an approved 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 four grab samples 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 comply 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. Calibration records for all NORM scanning devices must be maintained on-site and made available to RRC personnel upon request. 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.

C. The operator of the Reclamation Plant must conduct a shakeout test on all tank bottoms or other hydrocarbon wastes upon removal from any producing lease tank, pipeline storage tank, or other production facility, to determine crude oil content. The shakeout test shall be conducted in accordance with the most current American Petroleum Institute (API) or ASTM method.

D. All waste shall pass a Paint Filter Test (EPA Method 9095) prior to interment into a disposal pit. Test results from each Paint Filter Test must be submitted to Technical Permitting in Austin.
E. Prior to receipt at the site, representative samples of waste from commercial oil and gas facilities and Reclamation Plants 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><em>(EPA Method 9020B)</em></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
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<tr>
<td>Extractable Organic Halides (EOX)</td>
<td>100 mg/kg</td>
</tr>
<tr>
<td><em>(EPA Method 9023)</em></td>
<td></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 acceptance of the waste.

F. Prior to receipt at the site, representative samples of incoming RCRA non-exempt waste or any international waste 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.) <em>(EPA Method 1110A, 9040C or equivalent)</em></td>
</tr>
<tr>
<td>Ignitability</td>
<td>Flash Point &lt; 60° C <em>(EPA Method 1010A, 1020B, or 1030A)</em></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>Metals: Toxic Characteristic Leaching Procedure (TCLP) <em>(EPA Method 1311/6010/6020/7147A)</em></td>
<td></td>
</tr>
<tr>
<td>Arsenic (As)</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Barium (Ba)</td>
<td>&lt; 100.0 mg/L</td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>&lt; 1.0 mg/L</td>
</tr>
<tr>
<td>Chromium (Cr)</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>PARAMETER</td>
<td>LIMITATION</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>&lt; 0.2 mg/L</td>
</tr>
<tr>
<td>Selenium (Se)</td>
<td>&lt; 1.0 mg/L</td>
</tr>
<tr>
<td>Silver (Ag)</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Benzene</td>
<td>&lt; 0.5 mg/L</td>
</tr>
</tbody>
</table>

(EPA Method 1311/8260/8021B)

G. Details of receipts, deliveries for incoming waste to be processed at the Reclamation Plant (R9 08-1705) and the stock on hand (available for re-sale) must be reported monthly on the Form R-2, "Monthly Report for Reclaiming and Treating Plants". Submit the original of the Form R-2 report directly to Technical Permitting in Austin and a copy of the report to the appropriate District Office by the 15th day of the calendar month following the month by the report. Form R-2 shall be completed in accordance with Statewide Rule 57.

H. 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 American Petroleum Institute (API) well number(s); or latitude and longitude coordinates in decimal degrees if the waste was not generated on a lease; and
   c. County;
2. Name and RRC permit number of the transporter;
3. Volume of waste material (specify units); and
4. Detailed description of the type of waste, including any analysis required by Permit Conditions III.B., III.C., III.D., III.E. and III.F. above.

I. The permittee shall maintain the following records on each load of waste removed at 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.); and
5. Name and permit number of the disposal facility.

J. 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.Y. and shall include the following information:
1. All records required by Permit Conditions III.H. and III.I. above, as well as a summary of waste receipts;
2. The total volume of each type of waste material received during the specific quarter; and
3. Total volume of each type of waste that leaves the facility for disposal or final disposition during the quarter.

IV. GENERAL SITE DESIGN AND MAINTENANCE REQUIREMENTS

A. The general layout and arrangement of the facility shall be consistent with the “SITE PLAN” (Figure No.C1) and the “WASTE SEPARATION AREA LAYOUT” (Figure No. C2), diagrams received on February 6, 2018, which are attached and incorporated into this permit as Permit Appendix B.

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 shall consist of the following waste management unit designations:
   1. Waste Separation Area “B” and the Reclamation Plant (R9 08-1705)
      a. Five unloading bays;
      b. One 1,600-bbl Collecting/Receiving Pit (P012577);
      c. One 250-bbl slurry tank (steel);
      d. Three 320-bbl centrifuge heating tanks (steel);
      e. One Filter Press; and
      f. One 30 cubic yard roll off box.
   2. Waste Separation Area “A”
      a. One 1,540-bbl Collecting Pit (P012576);
      b. Two 1,200-bbl hydrocyclone separator tanks (fiberglass);
      c. Four 1,000-bbl settling tanks (fiberglass);
      d. Eight 750-bbl oil/water separators (fiberglass);
      e. Two 1,000-bbl surge tanks (fiberglass); and
      f. Four 500-bbl oil tanks (steel).
   3. Solids Processing Area and the Disposal Pits
      a. Truck Washout Area consisting of four concrete slabs;
      b. Collecting/Drying Pit (P012591);
      c. Collecting Pit (P012590);
d. Disposal Pit #1 (P012586) 11.9 acres;
c. Disposal Pit #2 (P012587) 11.9 acres;
f. Disposal Pit #3 (P012588) 5 acres; and
g. Disposal Pit #4 (P012589) 10.4 acres.

4. Fresh Water Pit

5. Stormwater Retention Basin (1.37 acres)

6. Brine and Fresh Water Tank Area
   a. Four 1,000-bbl Saltwater tanks;
   b. Two 1,000-bbl Well water tanks;
   c. Two 1,000-bbl Filtered water tanks; and
   d. One reverse osmosis system.

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, roll-off box or storage vessel reveals deterioration or leaks, it must be repaired or replaced before resuming use of the vessel.

F. Any spill of waste, chemical, or any other material must be collected and containerized within 24 hours and processed through the treatment system or disposed of in an authorized manner.

G. Any chemical used in the treatment process shall be stored in vessels designed for the safe storage of that particular compound and these vessels shall be maintained in a leak free condition.

H. Berms or containment structures must be constructed around all waste management units and 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 shall 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 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 gate when unattended to prevent vehicle or livestock access. Fencing shall be required unless terrain or vegetation prevents truck 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 the liquids must be collected and handled in accordance with RRC rules. Any recovered oil must be recorded and filed with the RRC on 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 the oil will be moved to;
e. Name, address, telephone, and fax number of facility buying the oil to be moved;
f. Contact person, T-1 permit number, and P-5 Operator Number of the oil buyer; and
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, berms, firewalls and aboveground storage tanks 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.Y.

L. The permittee must maintain the following records for a period of three (3) years from the date of the inspection required by Permit Condition IV.K.:

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.

V. CONSTRUCTION AND OPERATION OF THE WASTE SEPARATION AREAS ("A" and "B"), RECLAMATION PLANT (R9 08-1705) AND COLLECTING PITS (P012576 and P012577)

A. The general layout and arrangement of the Waste Separation Areas ("A" and "B"), the Reclamation Plant, Collecting Pit (P012576) and Collecting/Receiving Pit (P012577) must be consistent with the schematic diagram "TANK AND PIT AREA OVERVIEW" (Figure No. 1), received on September 15, 2017, which is attached to and incorporated into this permit as Permit Appendix C.

B. The process equipment and storage tanks shall be located on a concrete slab with a thickness of at least 12 inches and a wall thickness of at least six inches. The concrete secondary containment wall that surrounds Waste Separation "A" area must be at least four feet in height. The concrete secondary containment wall that surrounds Waste Separation "B" Area must be at least one foot in height.

C. All the storage tanks containing fluid waste or fuel shall be contained within dikes. Secondary containment of 120% total storage capacity is recommended, however a firewall capacity that will capture 100% of the volume of the largest tank plus the volume of a 25 year/24-hour rainfall event for Midland County is acceptable.

D. Spills within the secondary containment areas shall be containerized immediately and contact stormwater must be managed as waste and disposed of in an authorized manner.

E. The Truck Off-loading Area shall consist of an above grade structure that will have five unloading bays that are each approximately 22 feet wide by 60 feet long. The slab shall be constructed of reinforced concrete with a minimum thickness of 12 inches. The truck unloading is via a dual closed loop system and the pipes are contained in a concrete trench (6'x4'x4') located in the middle of the bays and conveyed to a sump box (8'x8') and then pumped to the Collecting/Receiving Pit (P012577). Construction must be consistent with the schematic diagram "TRUCK OFF LOADING AREA" (Attachment C3), received on November 17, 2017, which is attached and incorporated into this permit as Permit Appendix D.

F. The ground surface surrounding the Waste Separation Areas and the Truck Off-loading Area must be graded such that all surfaces slope away from the pits and unloading bays to prevent surface flow storm water from entering the pit.
G. CONSTRUCTION AND OPERATION OF THE COLLECTING PITS (P012576 and P012577)

1. The general layout and arrangement of the Collecting Pit (P012576) and Collecting/Receiving Pit (P012577) must be consistent with the schematic diagrams “ENLARGED TANK AND PIT AREA “B”” (Attachment 3) and the “CONCRETE FLUID CELLS DETAILS” (Figure No. 10), and the “ENLARGED TANKS AND PIT AREA “A”” (Attachment 2) and the “CONTAINMENT DETAILS” (Drawing No. 9) received on September 15, 2017, which are attached and incorporated into this permit as Permit Appendix E.

2. Use of the Collecting Pits is limited to the incoming oil and gas wastes specified in Permit Condition II.A. prior to disposal in a permitted Class II injection well or the on-site Disposal Pit. No other oil field fluids or oil and gas wastes may be stored or disposed of in the pits.

3. A sign shall be posted at each Collecting Pit identifying each pit permit number in letters and numerals at least three inches in height.

4. Collecting Pit (P012576) must be approximately 100 feet long by 60 feet wide by 3.5 feet deep. The usable capacity for the pit must not exceed 1,600 barrels or 332 cubic yards.

5. Collecting/Receiving Pit (P012577) must be an above grade dual channel with a weir that is approximately 100 feet long by 25 feet wide by 6 feet deep. The usable capacity for the pit must not exceed 1,540 barrels or 320 cubic yards.

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

7. The pits must be constructed of steel reinforced concrete at least 8 inches thick. The concrete liner must be installed and maintained in accordance with best management and sound engineering practices.

8. The pit 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 shall be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.Y. The District Office must be notified by phone or email at least 48 hours before emptying the pit for inspection.

9. The concrete liner must be inspected whenever evidence of liner leakage arises. If inspection of the concrete liner reveals a leak or other loss of integrity, the liner must be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit.

10. This permit does not authorize discharge of waste from any of the pits to the land surface or surface water.
11. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the pit must be in accordance with the information represented on the application (Form H-11) and attachments thereto.

VI. CONSTRUCTION AND OPERATION OF THE COLLECTING PIT (P012590)
AND THE TRUCK WASH AREA

A. The general layout and arrangement of the Collecting Pit (P012590) must be consistent with the schematic diagrams “COLLECTING PIT PLAN AND DETAILS” (Drawing No. C10), and the “COLLECTING PIT DETAILS” (Drawing No. C10A), received on January 4, 2019, which are attached and incorporated into this permit as Permit Appendix F.

B. The general layout and arrangement of the Truck Wash Area must be consistent with the schematic diagram “TRUCK WASH LAYOUT DIAGRAM” (Figure No.C4), received on February 6, 2018, which is attached and incorporated into this permit as Permit Appendix G.

1. The truck bays must be constructed of steel-reinforced concrete at least 12 inches thick with an 8-inch concrete bump curb on three sides of the concrete bays. The concrete liner must be installed and maintained in accordance with best management and sound engineering practices.

2. The truck bays must have at least a 1.5% slope to allow fluids to drain to the concrete ditch that gravity flows to the drain box for Collecting Pit (P012590).

C. Use of the Collecting Pit (P012590) is limited to the collection of non-hazardous oil and gas wastes as specified in Permit Condition II.A., wastewater from the truck wash area, leachate fluids, leak detection fluids and the collection of contact stormwater for processing, staging for evaporation, or disposal by injection in a Class II disposal well. No other oil field fluids or oil and gas wastes may be stored or staged in the pit.

D. A sign shall be posted identifying the pit by name and permit number in letters and numerals at least three inches in height.

E. The Collecting Pit (P012590) must have dimensions no greater than 237 feet by 237 feet by 12 feet (1.40 acres). The usable capacity must not exceed 35,115 barrels.

F. At least two feet of freeboard must be maintained between the fluid level in each pit and the crest of the containment berm.

G. The pit must be constructed in accordance with the liner system installation methods included in the application and consist of a (from bottom to top) geosynthetic clay liner (GCL), a 60-mil high-density polyethylene (HDPE) secondary liner, and a 60-mil HDPE primary liner. The liner system must be consistent with the diagram provided in Permit Appendix F.

H. The pit must be equipped with a leak detection system (LDS), which will consist of a HDPE drainage layer with a thickness of at least 225-mil placed between the primary and secondary liners, along with a leak detection trench/sump and riser that
are designed to maintain sufficient capacity to allow continuous flow and fluid evacuation.

I. The liner systems and the LDS must be installed in accordance with the manufacturer's specifications and sound engineering practices.

J. The floor of the pit must have at least a 1% slope to allow fluids to drain to the leak detection sump.

K. The leak detection system must be monitored daily, and the highest volume removed from the leak detection system during the seven-day period must be reported. The permittee must maintain a record of when the liner and the leak detection system are inspected and the results of each inspection. This record shall include:
   1. Date of fluid level measuring;
   2. Fluid level or volume;
   3. Volume of fluid removed;
   4. Electrical conductivity; and
   5. Chloride concentration of the fluids removed.

L. A summary of all records required by Permit Condition VI.K. above must be submitted in table form within the Quarterly Report required by Permit Condition I.Y. The physical record must be maintained by the permittee for the life of the pit. The physical record shall be filed with the RRC upon request.

M. If the leak detection system indicates a possible liner system failure, the liner system must be inspected for deterioration and leaks within five days of the initial detection of the failure. The RRC District Office must be notified by phone or email within 24 hours of the initial detection of the failure. No additional waste shall 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.

N. A liner system failure for Collecting Pit (P012590) is defined as any of the following:
   1. A volume withdrawn from the leak detection system that is greater than 1,400 gallons per day or 1,000 gallons per acre per day (GPAD).
   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.

O. The pit shall be surrounded by earthen berms constructed at least three (3) feet in height and meets the compaction requirements specified in Permit Condition IV.H.

P. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the pit must be in accordance with the information represented on the application (Form H-11) and attachments thereto.
VII. CONSTRUCTION AND OPERATION OF THE COLLECTING/DRYING PIT (P012591)

A. The general layout and arrangement of the Collecting/Drying Pit (P012591) must be consistent with the schematic diagram “DRYING AREA” (Drawing No. C25), received on November 17, 2017, which is attached and incorporated into this permit as Permit Appendix H.

B. Use of the Collecting/Drying pit is limited to the collection of non-hazardous oil and gas wastes as specified in Permit Condition II.A., for the processing, stabilization and staging of solid wastes prior to interment in the active on-site disposal pit. No other oil field fluids or oil and gas wastes may be stored or staged in the pit.

C. A sign shall be posted identifying the pit by name and permit number in letters and numerals at least three inches in height.

D. The Collecting/Drying Pit (P012591) must have dimensions no greater than 289 feet by 299 feet by 6 feet (1.98 acres) and must be lined with steel reinforced concrete with a minimum thickness of 8 inches. The usable capacity must not exceed 23,691 barrels or 4,926 cubic yards.

E. The floor of the pit must have at least a 1% slope to allow fluids to drain to the fluid collection channel.

F. At least a four-foot buffer must be maintained between the toe of the staged waste in the pit and the edge of the pit walls.

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

H. The ground surface surrounding the unloading area and pit must be graded such that all surfaces slope away from the pit to prevent surface flow stormwater from entering the pit.

I. The pit must be emptied and visually inspected annually for deterioration and leaks. A record of each inspection and photographs of the interior of the pit must be maintained for the life of the pit and shall be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.Y. The Midland District Office must be notified by phone or email at least 48 hours before emptying the pit for inspection.

J. The concrete liner must be inspected whenever evidence of liner leakage arises. If inspection of the liner reveals a leak or other loss of integrity, the liner must be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit.

K. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the pit must be in accordance with the information represented on the Form H-11 and attachments thereto.
VIII. CONSTRUCTION OF DISPOSAL PITS (P012586, P012587, P012588 and P012589)

A. The general layout and arrangement of Disposal Pits (P012586, P012587, P012588 and P012589) and the Stormwater Retention Basin must be consistent with the "DISPOSAL CELL SITE LAYOUT" (Figure No. C12) diagram received February 6, 2018, which is attached to and incorporated into this permit as Permit Appendix I.

B. Technical Permitting in Austin and the Midland District Office must be notified upon the initiation and final completion of construction of each Disposal Pit. The permittee may not begin using the pit until the District Office has completed an inspection of the pit and provided verification that the pit is constructed in accordance with the application and this permit.

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. Berms must be constructed and maintained on all sides of the Disposal Pits with a slope no steeper than one to three (vertical to horizontal) ratio and meet compaction criteria specified in Permit Condition IV.H.

E. The Disposal Pit (P012586) #1 must have dimensions no greater than 890 feet by 436 feet by 25 feet (8.2 acres) with a maximum above grade height of 48 feet. The usable capacity must not exceed 2,691,900 barrels or 559,773 cubic yards.

1. The initial construction of Disposal Pit (P012586) must be consistent with the diagram "DISPOSAL CELL 1 PLAN AND DETAILS" (Figure No. C13), received on February 6, 2018, which is attached to and incorporated into this permit as Permit Appendix J.

F. The Disposal Pit (P012587) #2 must have dimensions no greater than 890 feet by 436 feet by 25 feet (8.9 acres) with a maximum above grade height of 48 feet. The usable capacity must not exceed 2,769,600 barrels or 575,938 cubic yards.

1. The initial construction of Disposal Pit (P012587) and the final capping of Disposal Pit (P012586) must be consistent with the diagrams "DISPOSAL CELL 1 CAPPING PLAN DISPOSAL CELL 2 PLAN AND DETAILS" (Figure No.16A) and the "DISPOSAL CELL 1 CAPPING PLAN DISPOSAL CELL 2 PLAN AND DETAILS" (Figure No.16B), received on February 6, 2018, which are attached to and incorporated into this permit as Permit Appendix K.

G. The Disposal Pit (P012588) #3 must have dimensions no greater than 436 feet by 313 feet by 25 feet (3.13 acres) with a maximum above grade height of 48 feet. The usable capacity must not exceed 851,000 barrels or 176,982 cubic yards.

1. The initial construction of Disposal Pit (P012588) and the final capping of Disposal Pit (P012587) must be consistent with the diagrams "DISPOSAL CELL 2 CAPPING PLAN DISPOSAL CELL 3 PLAN AND DETAILS" (Figure No.17A) and the "DISPOSAL CELL 2 CAPPING PLAN DISPOSAL CELL 3 PLAN AND DETAILS" (Figure No.17B), received on
February 6, 2018, which are attached to and incorporated into this permit as Permit Appendix I.

H. The Disposal Pit (P012589) #4 must have dimensions no greater than 1,330 feet by 347 feet by 25 feet (10.7 acres) with a maximum above grade height of 48 feet. The usable capacity must not exceed 2,942,500 barrels or 611,887 cubic yards.

1. The initial construction of Disposal Pit (P012589) and the final capping of Disposal Pit (P012588) must be consistent with the diagrams “DISPOSAL CELL 3 CAPPING PLAN DISPOSAL CELL 4 PLAN AND DETAILS” (Figure No.18A), “DISPOSAL CELL 3 CAPPING PLAN DISPOSAL CELL 4 PLAN AND DETAILS” (Figure No.18B) and the “DISPOSAL CELL 4 CLOSED ALL CLOSED” (Figure No.C19B) received on February 6, 2018, which are attached to and incorporated into this permit as Permit Appendix M.

I. The total combined final capacity for the Disposal Pits shall not exceed 92,550,000 barrels or 1,924,580 cubic yards.

J. LINER, LEAK DETECTION AND LEACHATE COLLECTION SYSTEMS FOR DISPOSAL PITS (P012586, P012587, P012588 and P012589)

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 geosynthetic clay liner (GCL), a 60-mil high-density polyethylene (HDPE) secondary liner, 60-mil HDPE primary liner, and 24 inches of a protective soil layer that is not composed of waste.

2. The pits must be equipped with a Leachate Collection System (LCS), including a high-density polyethylene drainage net with a thickness of at least 270-mils thick that covers the entire pit area on top of the primary liner, to collect any rainwater that falls within the pit footprint and leachate that percolates through the waste contained therein.

3. The Disposal Pits must be equipped with a Leak Detection System (LDS), including an HDPE drainage layer with a thickness of at least 270-mil that extends over the entire pit between the primary and secondary liners, to collect any leakage from the primary liner.

4. The liner system, LCS and the LDS must be constructed and consistent with the “LEACHATE SUMP AND LINER DETAILS” (Drawing No. C14) and the “LEACHATE SUMP AND LINER DETAILS” (Drawing No. C15) diagrams received on November 17, 2017, which are attached and incorporated into this permit as Permit Appendix N.

K. The liners, LCS and the LDS must be installed in accordance with the application, the material manufacturer’s specifications and sound engineering practices.
L. The floor of all the Disposal Pits must have at least a 1% slope to allow fluids to drain to the central collection trench and then flow to the sump at the low end of each cell.

M. A liner anchor trench must be used to key the synthetic liners for each cell to their respective berms. The liners must be welded together to create a continuous liner system when the next disposal pit is constructed.

N. 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.

IX. OPERATION OF DISPOSAL PITS (P012586, P012587, P012588 and P012589)

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

B. All waste shall pass a Paint Filter Test (EPA Method 9095) prior to placement in any disposal pit. Test results from each Paint Filter Test must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.Y.

C. Before the Permittee may begin excavation of the next Disposal Pit in the sequence, the previous Disposal Pit must be filled with waste to almost final grade height, must be properly graded and prepared for final closure and capping. The Permittee must contact the Midland District Office to proceed with construction of each disposal pit in the sequence and may not begin accepting waste until;

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

2. Waste is no longer being accepted in the previous Disposal Pit and the final capping is almost completed. The final capping for each disposal pit must be completed within 120 days after cessation of use.

D. At least two feet of horizontal freeboard must be maintained at all times between the edge of waste in the active disposal pit and the top of the pit dikes.

E. Prior to the Disposal Pit 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.

F. Once the Disposal Pits begin to accept waste above grade, the pit freeboard (buffer) shall be constructed and maintained to contain all contact stormwater that may be generated during a 25-year, 24-hour storm event for Midland County.

G. The permittee must not construct or use any Disposal Pits in a manner that could exceed the financial security required by Permit Condition I.B.

H. No freestanding fluids may accumulate in any Disposal Pit. Any fluids must be removed within 72 hours of discovery and disposed of in an authorized manner.
I. The leak detection system must be monitored daily, and the highest volume removed from the leak detection system during the seven-day period must be reported. The permittee must maintain a record of when the liner and the leak detection system are inspected and the results of each inspection. This record shall include:

1. Date of fluid level measuring;
2. Fluid level or volume;
3. Volume of fluid removed;
4. Electrical conductivity; and
5. Chloride concentration of the fluids removed.

J. Records of leak detection system monitoring required by Condition IX.I. must be submitted in table form within the Quarterly Report required in Permit Condition I.Y. of this permit. The physical record must be maintained by the permittee for the life of the pit. The physical record shall be filed with the RRC upon request.

K. If the leak detection system 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 RRC District Office must be notified by phone or email within 24 hours of detection of the failure. No additional waste shall be added to the Disposal 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:

1. A liner system failure for Disposal Pits P012586, P012587, P012588 and P012589 is defined as any of the following:
   a. A volume withdrawn from the leak detection system that is greater than an Action Leakage Rate (ALR) of 100 gallons per acre day (GPAD).
      i. The ALR for Disposal Pit P012586 is 820 (GPAD).
      ii. The ALR for Disposal Pit P012587 is 890 (GPAD).
      iii. The ALR for Disposal Pit P012588 is 313 (GPAD).
      iv. The ALR for Disposal Pit P012589 is 1,070 (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.

O. 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.
X. CLOSURE AND CAPPING OF THE DISPOSAL PITS (P012586, P012587, P012588 and P012589)

A. The final capping for each Disposal Pit shall be consistent with the diagrams provided in Permit Appendices J, K, L and M.

B. Final closure and capping for all the Disposal Pits at the facility shall be consistent with the schematic diagrams “DISPOSAL CELL 4 CLOSED ALL CLOSED” (Figure No. C19A), received on February 6, 2018, which is attached and incorporated into this permit as Permit Appendix O.

C. Once each Disposal Pit has reached its permitted capacity:

1. Waste material in the Disposal Pit must be stabilized, so that the structure will not fail, slump or erode.

2. Waste material in the Disposal Pit must be graded, stabilized and compacted so that waste will support the pit cover and rainwater will not collect on top of the pits.

3. A final cap that consists of a 40-mil HDPE geocomposite liner, overlain by 12 inches of compacted caliche clay and 12 inches of on-site fill material that is compacted to at least 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density, overlain by 6 inches of top soil seeded with appropriate vegetation for the geologic region.

4. 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 Pits must be submitted and approved by Technical Permitting prior to the modification occurring.

XI. GROUNDWATER MONITORING

A. At least twelve (12) monitor wells must be installed at the facility prior to receiving waste deliveries. The monitor wells must be installed at the locations designated on the “MONITORING WELL LOCATIONS” (C21) diagram received November 17, 2017, which is attached to and incorporated into this permit as Permit Appendix P.

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 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 water tight at the surface and fitted with a lockable water tight expansion cap.

6. The groundwater monitoring wells must be able to provide a representative sample of groundwater underlying the site for the duration of facility operations. If a groundwater monitoring 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 Technical Permitting.

7. 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 slot size, as well as the local lithology.

   b. A well installation diagram for each well detailing construction specifications, 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 sampled and 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 (EPA Method 8260/8021B or equivalent)</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbon (TPH) (Method TX1005)</td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS) (Standard Method 160.1 or equivalent)</td>
<td>mg/L</td>
</tr>
<tr>
<td>pH (EPA Method 150.1 or equivalent)</td>
<td>s.u.</td>
</tr>
</tbody>
</table>
C. The groundwater quality sampling results required by Permit Condition XI.B. must be filed with Technical Permitting as part of the Quarterly Report required by Permit Condition I.Y. The laboratory analytical reports and the corresponding chain of custody shall be provided for all chemical analyses performed.

XII. STORMWATER MANAGEMENT

A. A perimeter berm must be constructed to surround the entire facility that meets the specifications listed in Permit Condition IV.H. and must have a minimum height of four (4) feet above land surface with a minimum 3:1 slope (horizontal to vertical) ratio on both sides.

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. Spills and releases into the interior ditches must be contained and removed immediately to prevent contact with stormwater.

C. All aboveground 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 Midland County as specified in the Permit Conditions IV.H. and V.C.

D. The general layout and arrangement of the stormwater management structures during active operations, which includes noncontact stormwater drainage ditches, rip-rap, culverts, one stormwater retention basin, and drainage diversion channels, shall be consistent with the diagrams “STORMWATER MANAGEMENT DURING CELL OPERATIONS” (Figure No. C8) and the “STORMWATER MANAGEMENT SCHEMATIC” (Figure No. C7) received on February 6, 2018, which are attached and incorporated into this permit as Permit Appendix Q.

E. The general layout and arrangement of the Stormwater Retention Basin must be consistent with the schematic diagram “STORMWATER RETENTION BASIN PLAN AND DETAILS” (Drawing No. C11), received on February 6, 2018, which is attached and incorporated into this permit as Permit Appendix R.
F. Contact stormwater must be contained within each active waste management unit. All contact stormwater must be removed and disposed of in an authorized manner.

G. In the event that contact stormwater enters a non-contact Stormwater Retention Pond, the permittee must submit a written report detailing the event to Technical Permitting in Austin. Contact stormwater must be removed and disposed of in an authorized manner.

H. 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 final closure activities. The permittee must submit a closure plan to Technical Permitting in Austin to be reviewed and approved prior to beginning closure activities.

B. At facility closure, all waste, chemicals, and waste related materials must be processed through the facility and/or removed from the facility for authorized reuse or disposal.

C. All waste processing equipment, aboveground storage tanks, and any other non-maintenance related equipment must be emptied, cleaned, and removed from the facility.

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

E. Excluding the Disposal Pits and Stormwater Management Areas, the entire facility must be backfilled as necessary, contoured to original grade, and re-vegetated with ground cover appropriate for the geographic region.

F. Closure of the Waste Separation Areas “A” and “B”, the Reclamation Plant, Solids Processing Area, Truck Washout Area and all the Collecting Pits (P012576, P012577, P012590 and P012591) shall be as follows:
   1. The contents of all tanks, vessels, or other containers must be disposed of in an authorized manner.
   2. All equipment must be removed and salvaged, if possible, or disposed of in an authorized manner.
   3. The Collecting Pits must be dewatered, emptied, demolished, backfilled, compacted, and properly closed. All wastes, including the liners, must be removed and disposed of in an authorized manner.
   4. The concrete areas, collecting pits, concrete pads, washout bays and access roads shall be cleaned and demolished, and the concrete rubble and wash-water must be disposed of in an authorized manner.
5. Twelve (12) inches of soil from beneath the concrete unloading bays, concrete liners, concrete aprons, and all visually contaminated soils from beneath the synthetic pit liners, shall be excavated and removed. The contaminated soil must be disposed of in an authorized manner.

6. 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 the Waste Separation Area and Reclamation Plant, Solids Processing Area and Collecting Pit Areas.

7. Soil samples required by Permit Condition XIII.F.6. must be analyzed for the analytical Parameters listed in Permit Condition XIII.G., and the specified Parameter Limitations shall not be exceeded.

G. Soil samples required by Permit Conditions XIII.F.6. must be analyzed for the following Parameters and shall not exceed the specified Limitations:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (EPA Method 9045C or equivalent)</td>
<td>6 to 10 standard units</td>
</tr>
<tr>
<td>Electrical Conductivity (EC)</td>
<td>≤ 4.0 mmhos/cm</td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbon (TPH) (EPA Method 5035A/TX1005)</td>
<td>≤ 10,000 mg/kg or 1 % by weight</td>
</tr>
<tr>
<td>Total Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) (EPA Method 5035A/8021/8260B)</td>
<td>≤ 30 mg/kg</td>
</tr>
<tr>
<td>Metals (Total) (EPA Method 6010/6020/7471A)</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>
<tr>
<td>Silver</td>
<td>≤ 200 mg/kg</td>
</tr>
</tbody>
</table>

1 Louisiana Department Natural Resources (LDNR) Lab Procedures for Extraction and Analysis of Exploration and Production (E&P) Waste or equivalent
H. A summary of the soil sampling required by Permit Condition XIII.F.6. 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; and
   5. Copies of the laboratory analytical reports and chain of custody.

I. 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.

J. Once the results of the closure activities have been approved by the RRC, all non-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 appropriate District Office and Technical Permitting in Austin shall be notified in writing.

XIV. POST-CLOSURE CARE AND MONITORING

A. In accordance with 16 TAC § 3.78 the permittee shall maintain financial security in the amount of $197,025.00 after the facility has stopped receiving waste, met all specified closure requirements and all the disposal pits have been properly capped for the post-closure monitoring period in accordance with this permit. 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 prior to the operating financial security referenced in Permit Condition I.B. will be released.

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

C. Any areas showing signs of erosion, slumping and instability must be 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. All groundwater monitoring wells must remain operational, and monitoring requirements must continue as specified in Permit Condition XI.B. until written approval from Technical Permitting in Austin is granted for plugging and abandoning the wells.
F. The leak detection system and the leachate collection system for the Disposal Pits must be maintained and monitored quarterly. Any leachate detected must be reported, collected and disposed of in an authorized manner.

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

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

I. 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.

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

APPROVED AND ISSUED ON **January 30, 2019**

Tiffany Humberson, Manager
Environmental Permits and Support
Technical Permitting

**Notes:**
2. Permit Appendix F amended to incorporate updated schematics.

**Attachments:** Permit Appendices A through R

**cc:** RRC – District 08, Midland
Permit Appendix A
Application For Permit To Operate A Reclamation Plant (Form R-9)
**APPLICATION FOR PERMIT TO OPERATE**
**A RECLAMATION PLANT**

**RAILROAD COMMISSION OF TEXAS**
Oil and Gas Division

**READ INSTRUCTIONS ON BACK**

**R-9**
2/7/90

<table>
<thead>
<tr>
<th>1. OPERATOR NAME, exactly as shown on P-5, Organization Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amrich Operating, L.L.C.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. OPERATOR P-S. NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>02047B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. FACILITY NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. COUNTY OF PLANT LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midland</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. PURPOSE OF PLANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>New permit for new facility</td>
</tr>
<tr>
<td>New permit for assisting facility</td>
</tr>
<tr>
<td>One-time renewal of existing permit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. TYPE OF FACILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Permanent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Drilling direction from the nearest town (identify town):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start trip in Midland, Texas. Head south on S Big Spring St toward W Missouri Ave. Turn Left onto W Florida Avenue. Continue straight onto TX-158 BUS E/W Florida Ave for 2.4 miles. Continue onto TX-156 E for 2.2 miles. Turn left onto E County Road 139 and continue for 7.0 miles. Turn left on FM 1979 S and drive 1.0 miles and the facility will be on the left.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. Brief description of treating process:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production fluids will first be trucked in from surrounding operations then solids will be removed. The remaining fluids will be sent through a settling tank to remove any remaining solids and finally transferred to an oil water separator in which oil will be skimmed from the top. From these separators, oil will be pumped into storage tanks to hold the fluids until they are trucked off site.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9. Material transported to plant in (see list No. 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X vehicles owned by applicant</td>
</tr>
<tr>
<td>X for-hire vehicles</td>
</tr>
<tr>
<td>X both applicant's and for-hire vehicles</td>
</tr>
</tbody>
</table>

| 10. Identify all oil and/or gas-related facilities located within 100 yards of facility. (Examples: wells, pipeline, storage, disposal facility, tank battery, etc.) |
| TYPE OF FACILITY                                        |
| Saltater disposal Facility                             |

<table>
<thead>
<tr>
<th>OPERATOR</th>
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<tbody>
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<thead>
<tr>
<th>CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I certify under penalties prescribed in Sec. 91.143 Texas Natural Resources Code, that I am authorized to sign this report that it was prepared by or under my supervision and direction, and that the date and facts stated herein are true, correct, and complete to the best of my knowledge.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SIGNED FOR AND ON BEHALF OF OPERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Lee</td>
</tr>
</tbody>
</table>

**TO BE COMPLETED BY RAILROAD COMMISSION PERSONNEL**

This permit is valid until cancellation under either of the following conditions:

1. The above named operator requests cancellation at written request
2. The commission cancels the permit after notice and opportunity for hearing because
   a. the permit has been inactive for 12 months or
   b. there has been a violation or a violation is threatened of any provision of the permit, the conservation laws of the state, or rules of the Commission.

This permit is non-transferable. The financial assurance filed in support of this application shall be renewed and continued in effect until its conditions have been met or release is authorized by the Commission. The facility schematic diagram is to be kept with this permit.

Serial/registration no.:
R9 08-1705
Issued/renewed effective (date):
July 31, 2018

Signed for and on behalf of operator:
Tiffany Hunstman
Phone No.:
512-463-4354

All wastes generated by reclaiming operations shall be disposed of in accordance with statewide rules, 8, 8, and 46 (relating to water protection, disposal wells, and fluid injection).
Permit Appendix B
SITE PLAN (Figure No.C1) and
WASTE SEPARATION AREA LAYOUT
(Figure No. C2)
Permit Appendix C

TANK AND PIT AREA OVERVIEW

(Figure No. 1)
Permit Appendix D
TRUCK OFF LOADING AREA
(Attachment C3)
Permit Appendix E

ENLARGED TANK AND PIT AREA "B"
(Attachment 3),

CONCRETE FLUID CELLS DETAILS (Figure No.10),

ENLARGED TANKS AND PIT AREA "A"
(Attachment 2) and

CONTAINMENT DETAILS (Drawing No. 9)
CONCRETE FLUID CELLS - PIT AREA B

PLAN
SCALE: 1" = 30'-0" (HORZ. & VERT.)

SECTION A-A'
SCALE: 1" = 30'-0" (HORZ.)
SCALE: 1" = 6'-0" (VERT.)

SECTION B-B'
SCALE: 1" = 12'-0" (HORZ.)
SCALE: 1" = 6'-0" (VERT.)
CONCRETE SAFETY CONTAINMENT - PIT AREA "A"

DRAINAGE PLAN
SCALE: 1" = 30'-0" (HORZ. & VERT.)

SECTION A-A'
SCALE: 1" = 20'-0" HORIZ.
SCALE: 1" = 12'-0" VERT.

SECTION B-B'
SCALE: 1" = 20'-0" HORIZ.
SCALE: 1" = 12'-0" VERT.
Permit Appendix F

COLLECTING PIT PLAN AND DETAILS
(Drawing No. C10) and

COLLECTING PIT DETAILS
(Drawing No. C10A)
PROPOSED COLLECTING PIT DETAILS

9 COLLECTING PIT DITCH HEADWALL SECTION

10 BUMP CURB/TRUCK WASH BAY/DITCH DETAIL

11 BUMP CURB/TRUCK WASH BAY/DITCH DETAIL

12 LINED DITCH DETAIL FROM TRUCK WASH TO DRAINAGE BOX

13 DRAIN BOX PLAN DETAIL

14 DRAIN BOX SECTION A-A

16 DOUBLE BOOTED PIPE PENETRATION INTO COLLECTING PIT
Permit Appendix G

TRUCK WASH LAYOUT DIAGRAM

(Figure No.C4)
Permit Appendix H

DRYING AREA (Drawing No. C25)
Permit Appendix I

DISPOSAL CELL SITE LAYOUT

(Figure No. C12)
Permit Appendix J

DISPOSAL CELL 1 PLAN AND DETAILS

(Figure No. C13)
Permit Appendix K

DISPOSAL CELL 1 CAPPING PLAN DISPOSAL CELL 2 PLAN AND DETAILS

(Figure No.16A) and

DISPOSAL CELL 1 CAPPING PLAN DISPOSAL CELL 2 PLAN AND DETAILS

(Figure No.16B)
Permit Appendix L

DISPOSAL CELL 2 CAPPING PLAN DISPOSAL CELL 3 PLAN AND DETAILS

(Figure No.17A) and

DISPOSAL CELL 2 CAPPING PLAN DISPOSAL CELL 3 PLAN AND DETAILS (Figure No.17B)
Cell 2 Total Volume Report

Total Volume of Cell (CY)

575,938

FOR PERMITTING PURPOSES ONLY
Permit Appendix M

DISPOSAL CELL 3 CAPPING PLAN DISPOSAL CELL 4 PLAN AND DETAILS
(Figure No.18A),

DISPOSAL CELL 3 CAPPING PLAN DISPOSAL CELL 4 PLAN AND DETAILS
(Figure No.18B) and

DISPOSAL CELL 4 CLOSED ALL CLOSED
(Figure No.C19B)
Permit Appendix N

LEACHATE SUMP AND LINER DETAILS
(Drawing No. C14) and

LEACHATE SUMP AND LINER DETAILS
(Drawing No. C15)
Permit Appendix O

DISPOSAL CELL 4 CLOSED ALL CLOSED
(Figure No. C19A)
Permit Appendix P

MONITORING WELL LOCATIONS (C21)
Permit Appendix Q

STORMWATER MANAGEMENT DURING CELL OPERATIONS (Figure No. C8) and

STORMWATER MANAGEMENT SCHEMATIC (Figure No. C7)
Permit Appendix R

STORMWATER RETENTION BASIN PLAN AND DETAILS (Drawing No. C11)