PERMIT TO RECLAIM OILFIELD RELATED HYDROCARBONS

PRODUCTION WASTE SOLUTIONS LLC
P O BOX 1017
ANDREWS TX 79714

Based on information contained in the application by Production Waste Solutions, LLC, received on January 20, 2017, and subsequent information received to date, you are hereby authorized to store, handle, treat and reclaim oilfield related hydrocarbons as designated herein:

Permit to Reclaim Oilfield Related Hydrocarbons
E-Z Way Reclamation Facility
Latitude, Longitude: 32.021541°, -102.428424°
Ector County, Texas
RRC District 08, Midland

NARRATIVE DESCRIPTION OF PROCESS:
The incoming oil and gas wastes are unloaded into a sump and pumped directly to the skim tanks where solids and fluid wastes are separated. The solids are pumped to the processing area that contains steel and fiberglass tanks, solids separation equipment, a mobile heater and a mobile centrifuge. The fluid wastes are pumped to separation tanks for additional gravity separation. The wastewater is stored in the produced water tank before being transported to a Railroad Commission of Texas (RRC) permitted Class II injection well for disposal, and the recovered oil fraction is stored in the oil tanks and sold. The separated solids will be stored in the designated storage box (17 cy) and transported offsite for disposal.

Authority is granted by the Railroad Commission of Texas (RRC) to store, handle, treat and reclaim certain nonhazardous oil and gas wastes and reclaim oilfield related hydrocarbons in accordance with Texas Administrative Code (TAC) Title 16, Part 1, Chapter §3.57 (Statewide Rule 57) and is subject to the following minimum conditions:

I. GENERAL PERMIT CONDITIONS
A. This authority granted by this permit is effective May 11, 2018.
B. The permittee may not receive, store, handle or reclaim oil and gas wastes at the facility until financial security in the amount of $68,343.00 is provided and approved by the RRC for the referenced location.
C. In accordance with TAC, Title 16, Part 1, §3.78 (Statewide Rule 78) the permittee shall maintain financial security in the amount of $68,343.00 until this reclamation plant has been closed in accordance with this permit. Technical permitting reserves the right to revise this amount, as necessary. Prior to any modification of this facility that would require increased financial security, an updated closure cost estimate must be submitted to Technical Permitting in Austin, and any addition financial security must be filed with and approved by the RRC prior to making that modification.

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

E. Unless otherwise required by conditions of this permit, construction, use and maintenance of the facility must be in accordance with the information represented on the “Application for Permit to Operate a Reclamation Plant” (Form R-9) provided and incorporated into this permit as Permit Appendix A and attachments thereto.

F. Technical Permitting in Austin and the appropriate RRC District Office must be notified in writing when construction of the facility begins and when the facility is complete. The permittee may not receive, store, handle or treat oil and gas waste at the facility until the RRC 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.

G. Prior to beginning operations, the facility shall have procedures in place to prevent unauthorized access. Access shall be maintained by a 24-hour attendant or a six-foot-high security fence and a locked gate when the facility is unattended. Fencing shall be required unless terrain or vegetation prevents vehicles or livestock access except through entrances with lockable gates.

H. Use of the Reclamation Plant is limited to the treatment, processing or reclamation of tank bottoms and other hydrocarbon wastes generated through activities associated with exploration, development and production of crude oil and other wastes containing crude oil.

I. The reclamation facility must be clearly identified with signs showing the name of the plant operator and permit number in letters and numerals at the least three inches in height.

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

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

L. 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 chemical is contingent upon RRC approval. All chemicals must be stored according to the manufacturer’s specifications.

M. 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.

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

O. A copy of the site-specific Spill Prevention and 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.

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

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

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

S. The Reclamation Plant permit is nontransferable by Statewide Rule 57 (c) (9). A new permit must be obtained by the new operator.

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

1. The report shall contain applicable information as required in Permit Conditions III.I. and IV.L.

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

3. The Quarterly Reports must be submitted to Technical Permitting 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.

U. The permit to operate a reclamation plant shall remain in effect until canceled at the request of the operator, the permitted facility has been inactive for 12 months, or there has been a violation, or a violation is threatened, of any provision of the permit, the conservation laws of the state, or rules or orders of Statewide Rule 57 (c)(7).
V. 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 RRC rules.

II. AUTHORIZED WASTES

A. Only oil and gas wastes subject to the jurisdiction of the RRC that are nonhazardous or exempt from Subtitle C (Resource Conservation and Recovery Act (RCRA)), may be received or processed at this facility. This permit authorizes the receipt of only the following oil and gas wastes:

1. Tank bottoms; and

2. Other hydrocarbon wastes as defined by Statewide Rule 57(b) (2).

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

C. No oil and gas Naturally Occurring Radioactive Material (NORM) waste as defined in 16 TAC, Part 1, §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.

D. 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.

E. 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.

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 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. The operator of the Reclamation Plant must conduct a shakeout test on all tank bottoms and other hydrocarbon wastes upon removal from any producing lease tank, pipeline storage tank or other production facility to determine crude oil content and lease condensate thereof.

D. The shakeout test shall be conducted in accordance with the most current American Petroleum Institute (API) or ASTM International method.

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>(EPA Method 9020B)</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></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 ppm may be considered. Authority must be obtained from Technical Permitting in Austin prior to acceptance of the waste.

F. Details of receipts of deliveries for incoming waste to be processed at the Reclamation Plant 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 Form R-2 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 of the report. Form R-2 shall be completed in accordance with Statewide Rule 57.

G. 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.D. and III.E. above.

H. 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.

I. 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.T. and shall include the following information:
   1. All records required by Permit Conditions III.G., III.H. 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. CONSTRUCTION AND OPERATION OF THE RECLAMATION PLANT AND UNLOADING AREA

A. The general layout and arrangement of the facility shall be consistent with the “EZ WAY RECLAMATION FACILITY” diagram, received on March 16 2017, and the “PWS & BUCKHORN LEASE LINES” and “PWS & BUCKHORN SUMP DETAIL” diagrams, received on May 3 2017, which are attached to and incorporated into this permit as Permit Appendix B.

B. The facility shall consist of the following waste management units and designations:
   1. Washout Area:
      a. Two Unloading Bays
      b. On 1.3-cubic yard Sump with Trench; and
      c. One 120 bbl fresh water tank.
   2. Reclamation Plant:
      a. One 17.7-cubic yard solids box;
      b. One mobile centrifuge; and
      c. One mobile heater unit.
   3. Tank Battery Containment Area:
      d. Three 500 bbl Saltwater tanks (fiberglass);
e. One 500 bbl Gunbarrel tank;
f. One 500 bbl Sales oil tank; and
g. Three 500 bbl Skim tanks.

C. The reclamation facility and the tanks listed above are limited to having no more than 3,620 bbls of unprocessed oil and gas waste; 500 bbls of processed/reclaimed oil and 17.7-cubic yards of solids resulting from the reclamation process onsite at any given time.

D. No additional equipment may be added without prior written approval by Technical Permitting in Austin. A request for any additional equipment must be submitted in writing to Technical Permitting for review.

E. All wastes generate by reclaiming operations shall be disposed of in an authorized manner.

F. No waste, treated or untreated, may be placed on the ground. All untreated and treated waste must be stored in steel tanks or in steel water-tight roll-off boxes.

G. Any spill of waste, treatment chemicals, or any other waste related material must be collected and containerized within 24 hours and processed through the treatment process or disposed of in an authorized manner.

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

I. All storage tanks, equipment and roll-off boxes must be maintained in a leak free condition. If inspection of a tank or storage vessel reveals deterioration nor leaks, the tank must be repaired before resuming use of the tank.

J. Berms or containment structures must be constructed around all waste management units and must be compacted or constructed of material that meets or exceeds 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density. Each berm shall maintain a slope no steeper than a three to one (horizontal to vertical) ratio unless constructed of concrete or equivalent material (firewalls). These structures must be used to divert non-contact stormwater around the waste management areas and contain and isolate contact stormwater within the waste management units. Refer to the stormwater management requirements specified in Permit Condition V.

K. All 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 Ector County is acceptable.

L. Each month an inspection of the entire facility must be performed on all concrete slabs, firewalls, processing equipment, berms, and above ground 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 Condition I.T of this permit.

M. The following records must be submitted and maintained for a period of three years from the date of the inspection as required by Permit Condition IV.L:
1. The results of the monthly inspection of liners, berms and firewalls within the facility for evidence of deterioration, leakage or stormwater run-on, and a description of the 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 the 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 the corrective action taken, if any.

V. STORMWATER MANAGEMENT

A. The facility must be designed and constructed to contain contact stormwater and prevent run-on of non-contact stormwater.

B. 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.

C. This permit does not authorize the discharge or release off-site of oil and gas waste or stormwater than has come into contact with oil and gas waste.

D. Any stormwater than has accumulated within the firewalls for storage tanks or within any pit will be considered contact stormwater. Contact stormwater must be collected and containerized within 24 hours and disposed of in an authorized manner or used in the treatment process.

VI. FACILITY CLOSURE

A. Technical Permitting and the appropriate District Office must be notified in writing at least 45 days prior to commencement of closure activities. The permittee must submit a closure plan to Technical Permitting in Austin to be reviewed and approved prior to closure activities beginning.

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

C. Processing equipment, aboveground storage tanks and associated piping, and any other relevant equipment must be removed from the facility in an authorized manner.

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

E. The entire facility must be contoured and backfilled as necessary to original grade and re-vegetated as needed.

F. Closure of the Reclamation Plant and Unloading Area shall be as follows:

1. All aboveground storage tanks and any other equipment must be removed from the area in an authorized manner.

2. The caliche pad shall be cleaned, demolished and the caliche rubble and wash water must be disposed of in an authorized manner.
3. 12 inches of soil from beneath the caliche pad, beneath the mobile heater and centrifuge and within the containment areas shall be excavated, removed and disposed of in an authorized manner.

4. After soil removal, at least 10 representative soil samples must be obtained from the Reclamation Plant, Unloading Area and Tank Battery. These soil samples must be analyzed for the Parameters listed in Permit Condition VI.G. Additional soil must be removed in any area where the Parameters Limitations have been exceeded.

G. Soil samples required by Permit Condition VI.F, 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)</td>
<td>6 to 10 standard units</td>
</tr>
<tr>
<td>Electrical Conductivity (EC)</td>
<td>≤ 4.0 mhmhos/cm</td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbons (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 VI.F 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 VI.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 the final surface grading of the facility must be accomplished in such a manner that rainfall will not collect at these locations. Upon final closure, the appropriate District Office and Technical Permitting in Austin shall be notified in writing.

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

APPROVED AND ISSUED ON **May 11, 2018**

Tiffany Humberson, Manager
Environmental Permits & Support
Technical Permitting

Attachments:
- Appendix A
- Appendix B

CC: RRC DISTRICT 08, MIDLAND Reporting Log, Austin
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

1. OPERATOR NAME, exactly as shown on P-5, Organization Report
   PRODUCTION WASTE SOLUTIONS, LLC.

2. OPERATOR P.S.N. No.
   081040

3. RRC DISTRICT No.
   8

4. COUNTY OF PLANT LOCATION
   Ector

5. OPERATOR ADDRESS, including city, state, and zip code
   1079 Box
   ANDREWS, TX 79714

6. PURPOSE OF PLANT
   ☑ New permit for new facility. Estimated completion date:
   ☐ New permit for existing facility. Name of previous operator:
   ☐ One-time renewal of existing permit
   ☐ serial/registration (R-2) no.

7. TYPE OF FACILITY
   ☑ Permanent
   ☐ Portable

8. Driving directions from the nearest town (identify town): DRIVE NORTH FROM ODESSA, TX ON HWY 385 TO THE INTERSECTION OF HWY 385 AND HWY 158. LOCATION ON THE SE. SIDE


10. Material transported to plant in: (see Inst. No. 8)
    ☐ vehicles owned by applicant
    ☐ for-hire vehicles
    ☐ both applicant's and for-hire vehicles

11. Identify all oil and/or gas-related facilities located within 100 yards of facility. (example: well, pipeline, saltwater disposal facility, tank battery, etc.)

   TYPE OF FACILITY
   SWD

   OPERATOR
   BUCKHORN DEQ- N LLC.

   SIGNATURE
   James Warner
   TITLE
   President
   NAME (print or type)
   432-635-9472
   PHONE
   1-16-17
   DATE

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 in writing.
2. The commission cancels the permit after notice and opportunity for hearing because
   a. the permit facility 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 or orders 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. 91-08-1701 issued/renewed effective May 11, 2018

Facility Name: EZ Way Facility

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)

RECEIVED
RRC OF TEXAS
JAN 23, 2017
O&G
AUSTIN, TX
APPENDIX B

EZ WAY RECLAMATION FACILITY

PWS & BUCKHORN LEASE LINES

PWS & BUCKHORN SUMP DETAIL
PWS & Buckhorn Sump Detail
Not to Scale

- Sump Pit Pump to PWS Battery
- PWS Truck Lane
- PWS Truck Lane
- Existing drainage sump to pit
- Buckhorn Truck Lane
- Block off existing sump to separate PWS and Buckhorn Leases
- Buckhorn Truck Lane
- Drivers Building
- Buckhorn Truck Lane
- Buckhorn Truck Lane
- Buckhorn Truck Lane
- Buckhorn Truck Lane
- Cross Section Sump Detail
  - 1" Steel Bar Grating
  - 12" wide x 5" deep x 136' long
  - Capacity: 423.9 Gallons

Concrete Divider

PWS Sump 2' x 3' x 3' deep 257 gallon capacity including trough

Buckhorns Linear Sump 423.9 gallons