



# RAILROAD COMMISSION OF TEXAS

## OIL AND GAS DIVISION

EXPRESS ENERGY SERVICES OPERATING LP  
ATTN CHIEF FINANCIAL OFCR  
9800 RICHMOND AVE STE 700  
HOUSTON TX 77042

Re: Permit No. MR-0016,  
Authorization to Treat Produced and Frac Flow-back  
Water for Re-use  
State of Texas, Supercedes Permit Issued December 12,  
2012  
Districts 1, 2, 3, 4, 5, 6, 7B, 7C, 8, 8A, 9, and 10

This permit supersedes the permit issued to Express Energy Services Operating LP issued on December 12, 2011. Based on information contained in your application received September 1, 2011, and subsequent information received to date you are hereby authorized to store, handle, treat, and recycle the following non-hazardous oil and gas wastes: produced water and frac flow-back water.

The Express Energy Services Operating LP mobile water treatment process shall utilize three distinct treatment stages – clarification, filtration, and reverse osmosis, or some combination thereof, by using: truck bay and unloading stations, mix tanks, multi stage tank battery, dewatering, and monitoring and testing systems to offload, commingle and circulate, and separate and capture crude oil, to treat water-based oil and gas waste for reuse as fracturing fluid make-up water. This authority is granted in accordance with 16 TAC Chapter 4, Subchapter B, and subject to the following minimum conditions:

### I. GENERAL PERMIT CONDITIONS

- A. The effective date of this permit is June 18, 2012.
- B. The authority granted by this permit expires on December 11, 2016.
- C. Only non-hazardous oil and gas wastes subject to the jurisdiction of the Railroad Commission of Texas and exempt from RCRA, Subtitle C may be treated. The permittee may store, handle, treat, and process only produced water and fracture flow back water at well sites.
- D. No oil and gas NORM (naturally occurring radioactive material) 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 process oil and gas NORM waste may be treated by this process.
- E. The Commission may consider this permit for administrative renewal upon review.
- F. Any request for renewal should be received at least 60 days prior to the permit expiration date.

- G. This permit is not transferable without the consent of the Commission. Any request for transfer of this permit should be filed with Technical Permitting in Austin at least 60 days before the permittee wishes the transfer to take place.
- H. The permittee shall submit a Semiannual Report containing the applicable information required in Condition V.A. of this permit.

The first Semiannual Report shall cover the period beginning on December 12, 2011 and ending June 30, 2012. The reporting periods shall thenceforth be July 1 through December 31 and January 1 through June 30 of each year.

The Semiannual Report shall be submitted to Technical Permitting in Austin no later than the 31<sup>st</sup> day of the month following the end of each reporting period, or each January 31 and each July 31, respectively.

- I. This permit does not authorize the discharge of any oil and gas waste from the treatment site, including contaminated stormwater.
- J. Material Safety Data Sheets must be submitted to Technical Permitting in Austin for any previously unrepresented chemical to be used in the treatment of waste. Use of the chemical is contingent upon Commission approval.
- K. Any soil, media, or other debris contaminated by a spill of waste or any other materials at the treatment sites shall be promptly cleaned up and processed through the treatment cycle or disposed of in an authorized manner.
- L. The permittee shall make all records required by this permit available for review and/or copying during normal business hours upon request of Commission personnel.
- M. Any pits to be used in conjunction with this facility not specifically authorized by 16 TAC § 3.8 must be permitted separately by the filing of Form H-11 and the supporting data.
- N. An independent laboratory neither owned nor operated by the permittee must conduct any analysis of sampling required by this permit.

## II. SITING

- A. When placed at a well site, the mobile water treatment system and all storage areas associated with the treatment process may not be located:
  - 1. Within a 100 year floodplain.
  - 2. In a streambed.
  - 3. In a sensitive area.
- B. When placed at a well site, the mobile water treatment system and all storage areas associated with the treatment process must be located:
  - 1. At least 100 feet from any surface water.
  - 2. At least 150 feet from any water wells.

### III. OPERATION

- A. The permittee must notify the surface owner prior to moving the mobile water treatment system onto any oil or gas lease.
- B. The appropriate District Office must be notified at least 48 hours prior to placing the on-site-mobile water treatment system and all associated above-ground storage equipment on an oil and gas lease and provide the name of the operator who generated the oil and gas waste to be treated, the lease name, the lease number and the well number for the lease on which the treatment unit will be placed.
- C. The permittee must place and keep the on-site mobile water treatment system on an oil and gas lease owned by the operator who generated the oil and gas waste to be treated, and the permittee/unit may only accept and treat produced water and frac flow-back water generated by the operator on whose lease the treatment site is located.
- D. All above ground storage vessels must be maintained in proper working condition.
- E. The recyclable product, as defined in 16 TAC Chapter 4, Subchapter B, shall consist of the water processed through the mobile water treatment system, which will subsequently be used for the makeup of fracture fluids.
- F. Oil and gas waste to be processed in the treatment unit must be stored in above ground tanks or a pit authorized to store it and pumped into the mobile water treatment system equipment.
- G. Oil and gas waste utilized in the recycling process must be treated in the on-site mobile water treatment system units.
- H. The mobile water treatment system may not be kept on one well location for more than one year.
- I. The recyclable product must be stored in an above-ground storage tanks or authorized or permitted pits at the well site where it will be re-used in the well completion process.
- J. A maximum 20,000 barrels of recyclable product may be stored at the well site at any given time.
- K. No solid waste generated from the mobile water treatment system (settled solids, filter cake, etc.) may be stored at a mobile water treatment system facility at any given time.
- L. The recyclable product must be utilized in the fracturing process within 60 days of its creation or disposed of in an authorized manner.
- M. The recyclable product may only be used in the makeup of fracturing fluid at the well site at which it was generated or at another well site within the same field owned or leased by the operator who generated the oil and gas waste prior to its treatment. Any excess recyclable product that is not used in the makeup of fracturing fluid must be disposed of in an authorized manner.

- N. The solid waste resulting from the treatment process must be disposed of in an authorized manner.
- O. The permittee must have personnel onsite at all times when the mobile water treatment system is in operation on an oil or gas lease. If personnel are not onsite, the treatment system must be in a non-operational state and secured to prevent unauthorized access.
- P. A Skim Oil/Condensate Report (Form P-18) must be filed for every month in which skim oil is recovered during the operation of the mobile water treatment system and then subsequently sold.

#### **IV. TRIAL RUN**

The permittee must demonstrate the ability to successfully process oil and gas waste into a recyclable product. The trial run period covers the first two well sites on which the treatment process is utilized.

- A. Operations during the trial run shall be consistent with Conditions I, II and III of this permit.
- B. During the trial run, in addition to providing notification to the appropriate District Office as required by Condition III.B., Technical Permitting in Austin must also be notified at least 48 hours prior to placing the mobile water treatment system and all associated above ground storage equipment on an oil and gas lease and provide the name of the operator who generated the fluids to be treated, the lease name, the lease number and the well number for the lease on which the unit will be placed.
- C. A written report of the trial run must be submitted to Technical Permitting in Austin within 15 days of completion of the trial run. The trial run report shall contain information consistent with the Recordkeeping and Reporting Requirements of Condition V of this permit.
- D. The permittee may not continue to process waste after the completion of the trial run until Technical Permitting has reviewed the Trial Run written report and verified that oil and gas waste is successfully being converted to a recyclable product.

#### **V. RECORDKEEPING AND REPORTING REQUIREMENTS**

##### **A. RECORDKEEPING**

- 1. Records must be kept of all waste treated for a period of three (3) years from the date of treatment. These records must include the following for each treatment unit and treatment site:
  - a. Date appropriate district office was notified.
  - b. Name of the generator.
  - c. Name of the waste hauler, if applicable.
  - d. Lease Name, Lease Number or Gas I.D. Number and Well Number, or API Number where the treatment unit was placed.
  - e. Lease Name, Lease Number or Gas I.D. Number and Well Number, or API Number where the oil and gas waste that was treated was generated.
  - f. Lease Number or Gas I.D. Number and Well Number, or API Number where the recyclable product was re-used.
  - g. Classification of the water from each lease as frac flow-back water, produced water, or a mixture of the two.

- h. The total dissolved solids, total suspended solids, oil, and scaling divalent ion concentrations of the frac flow-back or produced water from each lease used as feedstock for the mobile water treatment system.
- i. Volume of produced water and frac flow-back water treated in the treatment process.
- j. Volume of recyclable product, including water and salable oil, resulting from the treatment process.
- k. The total dissolved solids, total suspended solids, oil, and scaling divalent ion concentrations of the recyclable product generated from the mobile water treatment system.
- l. Volume of solid waste generated from the treatment process.
- m. The location at which the solid waste generated by the mobile water treatment system was disposed.
- n. Date(s) the oil and gas waste was processed through at the treatment unit.
- o. Date(s) the recyclable product was re-used.

## B. REPORTING

- 1. A copy of the records required in Permit Condition No. V.A. must be submitted to Technical Permitting in Austin as part of the Semiannual Report required in Condition No. V.C. of this permit. If no waste was stored, handled, treated or re-used within a reporting period, a written statement indicating that no waste was stored, handled, treated or re-used must be submitted to Technical Permitting in Austin as part of the Semiannual Report required in Condition No. V.C. of this permit.

## C. SEMI-ANNUAL REPORT

- 1. Beginning **July 31, 2012** and every six (6) months thereafter, permittee shall submit a Semiannual Report containing applicable information as required in Conditions V.A. and V.B of this permit for the previous six (6) month period.

## VI. CLOSURE

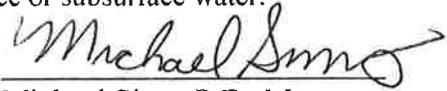
- A. All equipment associated with the treatment of oil and gas waste and the storage of recyclable product must be removed from the site within 120 days of the completion of the treatment process.
- B. The contents of any vessels or other containers, including unused recyclable product, shall be disposed of in an authorized manner within 120 days of completion of treatment process.

This permit differs from the original permit issued on December 12, 2011 by changing the stated maximum volume of 20,000 gallons of recyclable product that may be stored at the well site at any given time to 20,000 barrels of recyclable product that may be stored at the well site at any given time.

This permit differs from the original permit issued on December 12, 2011 by changing the second paragraph of Page 1 to state that three distinct treatment stages – clarification, filtration, and reverse osmosis, or some combination thereof - shall be used in the mobile treatment process. This differs from the language in the original permit by clarifying that all three technologies are not required to be used at all times during the treatment process.

The effective date and expiration date remain the same as in the permit issued on December 12, 2011.

Failure to comply with any provision of this permit shall be cause for modification, suspension or termination of this permit. This permit may be canceled if Technical Permitting determines that the permittee is in violation of the conditions of this permit or if the permittee's operations pursuant to the permit are causing or allowing pollution of surface or subsurface water.

A handwritten signature in black ink that reads "Michael Sims". The signature is written in a cursive style with a long horizontal stroke at the end.

Michael Sims, P.E., Manager  
Environmental Permits and Support  
Technical Permitting

cc: All RRC Districts