RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

Permit No. STF-061& Collecting Pit Permit Nos. P011972, P011973, P011974, P011975, P011976, P011977, P011978, P011979, P011980, P011981, P011982, and P011983
AMENDED December 16, 2013
Supercedes permit issued
November 6, 2013

WASTE MANAGEMENT OF TEXAS INC
4730 SE LOOP 410
SAN ANTONIO TX 78222

Covel Gardens Landfill TCEQ MSW Permit No. MSW-2093B, Commercial Oil & Gas Waste Separation Facility
Jose Bacerra Survey No. 58, A-50
Latitude: 29°20'32.87"N; Longitude: 98°39'11.10"W
Bexar County, Texas
RRC District 01

Based on information contained in your application received February 25, 2013 and subsequent information received to date, authority is granted to receive, store, handle, and treat oil and gas wastes in accordance with Statewide Rule 8 and subject to the following minimum conditions:

NARRATIVE DESCRIPTION OF PROCESS:

Incoming waste is offloaded into the RRC permitted collecting pits #1 (P011972), #2 (P011973), #3 (P011974), #4 (P011975), #5 (P011976), #6 (P011977), #7 (P011978), #8 (P011979), #9 (P011980), #10 (P011981), #11 (P011982), and #12 (P011983). The waste is directed through piping to a shaker tank, centrifuge, and dissolved air flotation (DAF) device where solids, liquids, and hydrocarbons (primarily diesel) are separated. Flocculent chemicals are used in the DAF device. Processed solids are conveyed to the onsite TCEQ landfill pits. The liquid waste will either be solidified and put in the TCEQ landfill, managed as contaminated water as allowed by the TCEQ landfill permit by pumping the liquid waste to an on-site double lined evaporation pond dedicated to hold such waste, or transported to a permitted off-site injection well for disposal. The hydrocarbons (primarily diesel) that are recovered from the centrifuge will be transported to a permitted off-site oil reclamation plant.

This authority is granted in accordance with Statewide Rule 8 and Chapter 4, Subchapter B, and subject to the following conditions:

I. GENERAL PERMIT CONDITIONS

A. The effective date of this permit is December 18, 2013 and permit expires on December 18, 2018.

B. Financial security in the amount of $183,621.20 for the Bexar County Facility (STF-061), including Pit Permit Nos. P011972, P011973, P011974, P011975, P011976, P011977, P011978, P11979, P01111980, P011981, P011982 and P011983, is provided to and approved by the Commission.

C. This permit may be considered for administrative renewal upon request and subsequent review by the Commission.

D. This permit is nontransferable without the consent of the Commission.

E. All hydrocarbons recovered by the separation facility must be sold and sent to an offsite RRC permitted reclamation plant.

F. The permittee shall make all records available for review and/or copying during normal business hours upon request of Commission personnel.

G. All laboratory analyses required to be performed by Condition I.I must be performed by an independent laboratory neither owned nor operated by the permittee.

H. Failure to comply with any provision of this permit will be cause for modification, suspension, or termination of this permit.

I. The permittee shall submit a Quarterly Report containing the applicable information required in Conditions II.B, III.A, III.B, III.C,V.F , VI.F , VII.B, and VIII.A.v of this permit. The first Quarterly Report shall cover the period beginning on the effective date of the permit and ending December 31, 2013. The reporting periods shall thenceforth be March 31, April 1 through June 30, July1 through September 30 and October 1 through December 31st of each year. The Quarterly Reports shall be submitted to Technical Permitting in Austin and the San Antonio District Office no later than the 31st day of the month following each reporting period, or each May 1 and October 31, respectively.

II. INCOMING WASTES

A. AUTHORIZED WASTES

a. Only oil and gas wastes subject to the jurisdiction of the Railroad Commission of Texas (RRC) that are non-hazardous or exempt from RCRA subtitle C may be received or processed at the RRC Permitted facility. This permit authorizes the receipt of only the following oil and gas wastes:

i. Water based drilling fluids and associated cuttings;

ii. Oil based drilling fluids and associated cuttings and

iii. Hydraulic fracturing flowback water.

b. This permit does not authorize the reclamation of crude oil from oil and gas waste. A request for authorization under Statewide Rule 57 must be submitted to Technical Permitting in Austin prior to any reclamation activities at the referenced facility.

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

B. TESTING REQUIREMENTS FOR INCOMING WASTES

a. For the purposes of this permit, a representative sample of incoming waste is defined as a composite sample composed of one grab sample from each 50 cubic yards of waste material from each job (e.g., from each well, pit, spill location).

b. Each load of incoming waste, other than water based drilling fluid and the associated cuttings, or oil based drilling fluid and the associated cuttings, must be scanned for the presence of naturally occurring radioactive material (NORM) using a scintillation meter with a sodium iodide detector. Any load with a maximum reading of 50 microroentgens per hour or more 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 Radium-226 combined with Radium-228 and 150 picocuries per gram of all other radionuclides.

c. Prior to receipt at the site, representative samples of waste from commercial oil and gas facilities must be analyzed and may not exceed the limit for the following parameter:

PARAMETER	LIMITATION
TOX (Total Organic Halides)	100 mg/kg

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

III. RECORDKEEPING REQUIREMENTS

A. The permittee shall maintain the following records on each load of waste received at the facility for a period of five (5) years from the date of receipt:

a. Description of the site where the waste was generated, including:

i. Generator name;
ii. Lease name and number or gas ID or API Well Number; and
iii. County;

b. Name of transporter;

c. Volume of waste material (specify units); and

d. A description of the type of waste material, including:

i. Fluid-to-Solid ratio; and
ii. Detailed description of the type of waste including any analysis required by Condition II.B above.

B. The permittee shall maintain the following records on each load of outgoing waste sent from the referenced facility to an authorized disposal facility for a period of five (5) years from the date of shipment:

a. Description of the facility to where the waste is sent to for disposal, including:

i. Disposal operator name;
ii. Disposal permit number; and
iii. County

b. Name of transporter;

c. Volume of waste material (specify units); and

d. A detailed description of the type of waste material.

C. A report of all records required by Conditions III.A and III.B above, as well as a summary of waste receipts including the volume of each type of material received on a monthly basis shall be submitted to Technical Permitting in Austin and the San Antonio District Office as part of the Quarterly Report required in Condition I.I of this permit.

IV. GENERAL SITE CONSTRUCTION AND MAINTENANCE REQUIREMENTS

A. The general layout and arrangement of the facility shall be consistent with the site plan in the attached **Permit Appendix C.**

B. A sign shall be posted at each entrance to the facility, which shall show the permit number in letters and numerals at least one-inch in height.

C. Any chemicals used in the treatment process shall be stored in vessels designed for the safe storage of the particular chemical. These vessels shall be maintained in a leak-free condition. Requests to use any other chemicals in the treatment process shall be submitted to and approved by Technical Permitting in Austin prior to use.

D. The Process Area shall consist of the following equipment:

a. One 400 bbl shaker tank

b. Four Centrifuges

c. Two 400 bbl mud feed tanks
d. One 400 bbl float feed tank
e. Three 500 bbl recovered water tanks
f. Two 500 bbl float tanks
g. One 500 bbl recovered oil tank
h. One 86 bbl dissolved air flotation tank
i. One 40 cubic yard roll-off container
j. One 200 cubic yard roll-off container

E. Any pits and buried tanks shall be permitted in accordance with Statewide Rule 8.

F. All treated and untreated waste shall be contained in steel tanks or in permitted pits. All pits and tanks shall be maintained in a leak-free condition.

G. All above ground tanks containing untreated and treated waste shall be contained within an 8 inch thick concrete pad and concrete containment wall. Walls shall be constructed and maintained to a minimum height of 2.5 feet and minimum thickness of 8 inches. The concrete pad and wall shall not be structurally compromised by operations at the facility. The liner must be installed according to accepted, standard industry practices and must have a hydraulic conductivity equal to or less than 1×10^{-7} cm/sec.

H. The perimeter of the property shall be enclosed with a fence suitable to keep out unauthorized access to the extent where terrain and vegetation prohibit access to the facility. The site is to be attended continuously or secured when unattended.

I. Any spill of waste, chemical(s), or any other material shall be immediately cleaned up and processed through the treatment process or disposed of in an authorized manner.

J. Spills contained within the containment walls (as described in Condition IV.G. above) surrounding the mud storage tanks, processing water tanks, centrifuge, and load-out tanks shall be immediately removed and processed through the treatment process or disposed of in an authorized manner.

K. This facility shall conform to all Texas Commission on Environmental Quality (TCEQ) air quality rules and regulations.

V. COLLECTING PITS (P011972, P011973, P011978, P011979) CONSTRUCTION AND OPERATION

A. Use of the Collecting Pits is limited to the wastes listed in Condition II.A of this permit.

B. The Collecting Pit bottoms and walls shall be constructed of concrete at least 12 inches thick. The pit walls shall be constructed of concrete at least 12 inches thick to a height of at least 6 inches above ground level. The liner must be installed

according to accepted, standard industry practices and must have a hydraulic conductivity equal to or less than 1 x 10^{-7} cm/sec. The permittee shall notify the San Antonio District office at least 48 hours prior to liner installation. Use of the may not commence until the San Antonio District Office inspects the installed liner and Technical Permitting in Austin approves the use of the pit.

C. The capacity of each Collecting Pit may not exceed 246 barrels.

D. At least 2 feet of freeboard must be maintained between the fluid level in the pit and the top of the pit.

E. Each pit must be emptied of all contents and the liner inspected annually for deterioration and leaks. The San Antonio District Office must be notified at least 48 hours before each inspection. The liner must also be inspected whenever evidence of liner leakage arises. If inspection of the liner reveals a leak or other loss of liner integrity, the liner must be replaced or repaired before resuming use of the pit.

F. The permittee must maintain a record of when the liner is inspected and the results of each inspection. This record shall be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.I. of this permit.

G. Unless otherwise required by conditions of this permit, construction, use, and maintenance of each pit shall be in accordance with the information represented on the application (each H-11) and attachments thereto.

H. A sign shall be posted at the pit, which shall show the pit permit number in numerals at least one inch in height.

I. No oil may be allowed to accumulate on top of the waste stored in any pit. Any oil on top of the water must be skimmed off.

J. This permit does not authorize the discharge of any oil and gas waste from any pit.

K. Any pit must be dewatered, emptied, backfilled, and compacted within 120 days of final cessation of use of any pit. Final closure of the pit must be accomplished in such a manner that rainfall will not collect at the pit location after pit closure. Upon final closure, Technical Permitting in Austin and the San Antonio District Office shall be notified in writing.

VI. COLLECTING PITS (P011974, P011975, P011976, P011977, P011980, P011981, P011982, P011983) CONSTRUCTION AND OPERATION

A. Use of the Collecting Pits is limited to the waste listed in Condition II of this permit.

B. Each Collecting Pit bottom shall be constructed of steel at least 1 inch thick. The pit walls shall be constructed of steel at least 1 inch thick to a height of at least 6 inches. The liner must be installed according to accepted, standard industry practices and must have a hydraulic conductivity equal to or less than 1 x 10^{-7} cm/sec. The permittee shall notify the San Antonio District office at least 48 hours prior to liner

installation. Use of the pit to contain oil and gas waste may not commence until the San Antonio District Office inspects the installed liner and Technical Permitting in Austin approves the use of each pit.

C. The capacity of each Collecting Pit may not exceed 785 barrels.

D. At least 2 feet of freeboard must be maintained between the fluid level in the pit and the top of the pit.

E. Each pit must be emptied and the liner inspected annually for deterioration and leaks. The San Antonio District Office must be notified at least 48 hours before each inspection. The liner must also be inspected whenever evidence of liner leakage arises. If inspection of the liner reveals a leak or other loss of liner integrity, the liner must be replaced or repaired before resuming use of the pit.

F. The permittee must maintain a record of when the liner is inspected and the results of each inspection. This record shall be submitted to Technical Permitting in Austin as part of the Quareterly Report required in Condition I.I of this permit.

G. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the pit shall be in accordance with the information represented on the application (each H-11) and attachments thereto.

H. A sign shall be posted at the pit, which shall show the pit permit number in numerals at least one inch in height.

I. No oil may be allowed to accumulate on top of the waste stored in any pit. Any oil on top of the water must be skimmed off.

J. This permit does not authorize the discharge of any oil and gas waste from any pit.

K. Any pit must be dewatered, emptied, backfilled, and compacted within 120 days of final cessation of use of the pit. Final closure of the pit must be accomplished in such a manner that rainfall will not collect at the pit location after pit closure. Upon final closure, Technical Permitting in Austin and the San Antonio District Office shall be notified in writing.

VII. STORMWATER CONTROL

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

B. Stormwater dikes must be constructed around the area as depicted in **Permit Appendix C**. The dikes must be constructed with concrete to a minimum height of 2.5 feet. Any road(s) traversing the dikes may not compromise the integrity of the dikes' ability to control stormwater.

C. Stormwater collected in the treatment facility area must be disposed of in an authorized manner.

VIII. CLOSURE OF THE SITE

A. Closure of the RRC Permitted Facility at Covel Gardens shall proceed as follows:

i. All waste must be processed through the facility or disposed of in an authorized manner. No waste may be permanently disposed of at this facility.

ii. The contents of all containment areas, tanks, vessels, or other containers shall be disposed of in an authorized manner.

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

iv. After waste and storage containers are completely removed, and collecting pits are backfilled, representative soil samples shall be obtained from around the location(s) of the treatment facility. Sampling shall be conducted so that a minimum of six grab samples shall be taken around and underneath each concrete pad that the portable separation facility has been. These samples shall be analyzed and the following constituent levels shall not be exceeded:

v.

Constituent (units)	Closure Limit
pH (s.u.)	6.0 to 10.0
Electrical Conductivity (mmhos)	4.0
TPH (mass %)	<1
BTEX (mg/kg)	30.0

Constituent (units)	Closure Limit
Metals (mg/kg):	
Arsenic	10.0
Barium	10000.0
Cadmium	10.0
Chromium	100.0
Lead	200.0
Mercury	10.0
Selenium	10.0
Silver	200.0

vi. A map showing the sampling locations and copies of the analysis required by Condition VIII.A.v. shall be submitted to Technical Permitting in Austin. When acceptable constituent levels have been verified in writing by Technical Permitting, the earthen berms shall

be leveled to grade. Topsoil shall then be contoured and seeded with appropriate vegetation.

vii. Provision shall be taken to prevent erosion both during and following closure activities.

B. Technical Permitting and the San Antonio District Office shall be notified in writing at least 45 days prior to commencement of closure activity so that the Commission may monitor closure to assure compliance with the closure plan. Closure activities shall be performed in accordance with the information contained in the permit application.

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

Doug O. Johnson, P.E.
Assistant Director,
Technical Permitting

Note: Amended II. B.c., changed to "representative samples of wastes from commercial oil and gas facilities must be analyzed and may not exceed the limit for the following parameter:"