



**Stephanie Garcia Richard
Commissioner of Public Lands
State of New Mexico**

RECYCLING CONTAINMENT AND RECYCLING FACILITY BUSINESS LEASE

Lease No. BL-2800

THIS LEASE (this “Lease”), is made and entered into by and between the New Mexico Commissioner of Public Lands, hereinafter referred to as “Lessor,” and **Matador Production Company**, whose address is **5400 LBJ Freeway, Suite 1500, Dallas, TX 75240**, hereinafter referred to as “Lessee.”

Whereas the Lessee has filed in the office of the Commissioner of Public Lands an application for a business lease for a recycling containment and recycling facility covering the lands hereinafter described and has tendered the required first payment; and

Whereas, all of the requirements of law relative to the application have been satisfied:

Lessor and Lessee agree and covenant as follows:

1. **DEFINITIONS.** Definitions set forth in the New Mexico Oil Conservation Division’s (NMOCD) Rule 19.15.2.7 NMAC (General Provisions for Oil and Gas Operations), 19.15.29 NMAC (Release Notification) and 19.15.34 NMAC (Produced Water, Drilling Fluids and Liquid Oil Field Waste) are incorporated herein by reference unless otherwise modified or defined below, except to the extent not consistent with this Lease, or the rules and laws governing Lessor. Definitions set forth in State Land Office (SLO) Rule 19.2.9 NMAC are also incorporated herein by reference.

Additional Definitions:

- A. “Closure Plan” refers to the plan outlined in 19.15.34.14 NMAC that describes the closure method and the procedures to implement the closure.
- B. “Effective Date” means the date this Lease is signed by the Commissioner of Public Lands.
- C. “Full Financial Due Diligence” means providing Lessor with a Dunn & Bradstreet Comprehensive Insight Plus Report or equivalent financial information for the proposed assignee.
- D. “Leased Premises” means the lands owned by Lessor and contemplated by the terms of this Lease in Paragraph 2.

2. **LEASE.** For and in consideration of and subject to the terms, conditions, covenants and reservations contained herein, Lessor grants to Lessee the right to enter upon, cross, use, possess, and occupy the Leased Premises as defined below for a recycling containment and recycling facility.

Township	Range	Section	Aliquot	Acreage	County
23S	33E	6	4	0.06	Lea
23S	33E	6	5	12.80	Lea

The rights granted herein are subject to all valid existing rights in the Leased Premises.

3. **WATER REQUIREMENTS.** All water appropriated shall be pursuant to state law and regulations and consistent with the Permitted Use of this Lease. If the Lessee will, or intends to, drill a water well on the Leased Premises, Lessee must obtain a separate water easement from Lessor.

4. **RESERVATIONS.** Lessor reserves the right to execute leases for the exploration, development and production of geothermal resources, oil and gas, sand, gravel, caliche, coal, shale, clay, rock, building stone or materials, potassium, sodium, phosphorus, salt or any other minerals or deposits of whatsoever kind located in, under or upon the Leased Premises without disruption to the operating area of the Lessee. Lessor reserves the right to sell or exchange the lands included in this Lease subject to the terms of the Lease.

5. **TERM.** The term of this Lease shall begin on the Effective Date of this Lease and continue through five (5) years unless terminated or canceled earlier as herein provided.

6. **RENT.** Lessee shall pay to Lessor as rent for the Leased Premises and for the rights and privileges granted hereunder base rent and volume rent on the following schedule:

Year	Term Dates		Annual Rent
1	05/15/2020	05/14/2021	\$21,007.00
2	05/15/2021	05/14/2022	\$21,637.00
3	05/15/2022	05/14/2023	\$22,286.00
4	05/15/2023	05/14/2024	\$22,955.00
5	05/15/2024	05/14/2025	\$23,644.00

due and payable in advance on or before the anniversary date of each year during the term of this lease. Time is of the essence in the performance of this agreement. Interest on delinquent rent payments shall accrue from the date the payment becomes due at the rate of one percent a month or any fraction of a month. Lessee shall also pay a late processing fee of **\$50.00** for any delinquent payment of rent, in accordance with the Lessor's schedule of fees.

7. **PERMITTED USE.** Lessee shall use the Leased Premises for the sole and exclusive purpose of operating and maintaining the *Rodney Robinson Recycling Containment and Facility*. No other use shall be permitted.

8. **IMPROVEMENTS.** Lessee may place the following improvements on the leased premises:

- Non-Rental:

Frac Pit Containment and Leak Detection (3 layers of liner, leak detection system, aeration system) - \$700,000

- Rentals:

Large Above-Ground Storage Tank for Recycling - \$250, 000

Water Treatment Equipment – (4 x \$150,000 “trains” = \$600,000)

- Train Includes:

- *Weir and clarifier tanks
- *Water Transfer Pumps/VFDs
- *Chemical Injection Pumps
- *Water Transfer hose

- *Filter pots

No other improvements shall be placed on the Leased Premises without the prior amendment of this Lease pursuant to the terms of this Lease hereof to permit such improvement placement. Lessee shall maintain and protect from waste and trespass all improvements placed on the Leased Premises. In the event improvements other than those authorized herein are placed on the leased premises, Lessor may either declare title to such improvements in Lessor without payment of compensation to Lessee or Lessor may order the removal of such improvements and the restoration of the leased premises to their condition existing prior to the placement of said improvements at Lessee's expense. The foregoing rights of Lessor shall be cumulative to Lessor's right to cancel this Lease as herein provided.

9. DESIGN AND CONSTRUCTION SPECIFICATIONS. Lessee shall conform with the design and construction requirements as contained in 19.15.34 NMAC et al. (Produced Water, Drilling Fluids and Liquid Oil Field Waste) except as modified herein; An operator shall not locate clean dirt excavated from a recycling containment's construction within a drainage area. Clean dirt and topsoil is not to be removed from the site as it will be used in reclamation and revegetation.

10. OPERATIONAL REQUIREMENTS. Lessee shall act in conformity with the following:

A. Lessee shall remove all surface trash and debris caused by their operations from the Leased Premises and shall keep such premises free and clear of such trash and debris. "Surface trash and debris" means all nonoperation and/or nonessential equipment resulting from the operations permitted pursuant to this Lease and includes, but is not limited to, garbage, rubbish, junk or scrap.

B. In addition to the fencing requirements for pits in 19.15.34.12 Paragraph D. NMAC, the Lessor requires that a fence be installed at the time the liner is installed in the pit through the satisfaction of closure and site reclamation requirements of 19.15.34.14 NMAC and the terms of this Lease.

C. All releases and spills over one half barrel shall be reported to the Lessor within forty-eight (48) hours. All major and minor releases shall be treated and cleaned up pursuant to NMOCD regulations. All spills over one half barrel and less than five barrels shall be treated and cleaned up to the reasonable satisfaction of Lessor.

D. Lessee shall keep accurate records of the volume of water leaving the Leased Premise after receiving Treatment and shall report this volume to Lessor no less than quarterly. Lessee may choose to fulfill this requirement by providing Lessor with copies of the monthly filing of NMOCD form C-148 as required by 19.15.34.9 Paragraph E. NMAC. Lessor, at Lessor's discretion but not more often than once during each lease year, may audit the reported volumes.

11. EMERGENCY EXCEPTION. In case of explosion, fire, flood or other sudden emergency, whether of the same or different nature, Lessee may take such steps and incur such expenses as in its reasonable opinion are required to deal with the emergency to safeguard life and property, but Lessee, as promptly as possible, shall report the emergency to the Lessor.

12. LIEN. To secure the payment of any rent amount that becomes due, and to satisfy all reasonable costs incurred by Lessor in recovering said rent amount, Lessor shall have a first and prior lien on any equipment owned by the Lessee placed on the Leased Premises, and on all improvements and fixtures placed on the Leased Premises.

13. WASTE EXCAVATION AND REMOVAL. Closure requires all wastes to be disposed of at an NMOCD approved facility. Lessee shall comply with NMOCD closure procedures and requirements except if the contaminant levels for chloride or benzene exceed the levels listed in Table 1 below the Lessor may

require additional testing and reclamation of the site. The Lessee shall provide Lessor with a copy of the testing results as required by NMOCD Rule 19.15.34.14 Paragraph C.

Table I			
Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
50-100 feet	Chloride	EPA 300.0	500 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	0.2 mg/kg
> 100 feet	Chloride	EPA 300.0	1,000 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	0.2 mg/kg
* Lessee may use other test methods approved by NMOCD.			
** Numerical limits on natural background level, whichever is greater.			

14. IMPROVEMENT REMOVAL, RECLAMATION AND RESTORATION. Prior to termination of this Lease, Lessee shall remove all improvements placed on the Leased Premises and restore the surface of the Leased Premises to substantially the same condition it was in before the placement of said improvements. Lessee shall fully comply with the revegetation and reclamation requirements as described in the Closure Plan and/or the Lease before Lessee is released of its obligations; provided, however, if any rent amount is due and unpaid at the time of Lease cancellation or termination, Lessee shall remove improvements and restore the Leased Premises as herein provided only at such time, in such manner, and under such conditions, as Lessor may in writing demand. Lessee hereby waives, and shall not assert, any right to compensation for improvements on the Leased Premises under Section 19.7.14 NMSA (1978). Lessee's obligations to restore the surface of the land to substantially the same condition it was in when the lease was effective shall survive the termination of the lease.

A. All costs, fines and fees incurred by Lessor as a result of improvements left on the Leased Premises without Lessor's approval, and all costs, fines and fees incurred as a result of damage or waste to trust lands and their improvements during the term of the Lease, or arising from or in connection with Lessee's use and occupancy of the Leased Premises, shall remain the sole liability of the Lessee and shall be deemed additional rent due.

B. Lessor retains the right to require additional site remediation or reclamation beyond the requirements established in the Closure Plan. Further, Lessor, in Lessor's sole discretion but in consultation with Lessee, may give notice that it wishes to elect to establish alternative methods to ensure proper protection of the Leased Premises.

15. RECLAMATION BOND. Within 45 days of the effective date, the Lessee shall provide the Lessor with a bond from a New Mexico licensed surety, in a form approved by the Lessor, in the amount of BOND AMOUNT IN DOLLARS (\$580,864.00) to secure the Lessee's obligation to indemnify for issues arising under this Lease and completion of the removal and reclamation work. The bond required by this paragraph will be in addition to any standard Megabond provided by the lessee for oil and gas operations. The Bond, of whichever type, shall not be released until all remediation is complete as certified by Lessor, and all conditions, including all remedies set forth in this agreement, are satisfied.

16. RELINQUISHMENT. Lessee, if not in default under this Lease, may at any time apply to relinquish the Lease to Lessor and be relieved of further obligations under the Lease except for all damages

to the Leased Premises and any liability claimed against Lessor by third parties emanating from Lessee's use which are latent in nature, provided, however, such relinquishment shall not be valid or effective until approved in writing by Lessor. Lessee must file an application to relinquish the Lease at least 30 days prior to the date on which the Lessee requests the relinquishment to go into effect. Relinquishment shall be made on a form prescribed by Lessor and shall be accompanied by the required relinquishment fee as set forth in Lessor's schedule of fees. Upon relinquishment Lessee shall not be entitled to the refund of any rent or fees previously paid.

17. ASSIGNMENT. Lessee, with the written approval of the Lessor, that shall not be unreasonably withheld, may assign all of Lessee's leasehold interest in the Leased Premises. Assignee shall succeed to all the rights and privileges of the assignor and shall expressly assume all the duties and obligations of the assignor to the Lessor as to the Leased Premises. Unless specifically excepted by Lessor, assignor shall complete a Full Financial Due Diligence on the proposed assignee at their own expense to be provided to the Lessor with the application for assignment. Prior to Lessor approval of any assignment, the proposed Assignee must provide proof of bonding and insurance in an equal or greater amount than the bond posted on behalf of the Assignor. Lessor may increase the bond amount to be posted by the proposed Assignee to protect the Leased Premises. Lessor's approval of any assignment or subsequent assignments shall not relieve Lessee of any responsibilities or obligations under this Lease except for the obligation to pay additional rents, maintain improvements, monitor for leaks, keep the surface clean, secure the Leased Premises from trespass, indemnify against actions by third parties, maintain insurance for the Leased Premises, or maintain a bond for the Leased Premises, reclamation and revegetation; and to report to the Lessor on any other matter.

Assignor is defined as any entity, approved by the Commissioner, to whom the Lessor grants the rights, duties, and obligations under the Lease.

18. SUBLEASE. Lessee shall not sublease the rights granted hereunder, any part thereof, any portion of the Leased Premises or any improvements located on the Leased Premises without the prior amendment of this Lease pursuant to the terms of this Lease.

19. COLLATERAL ASSIGNMENT. Collateral Assignments shall be governed by New Mexico State Land Office Rule 9, "Business Leasing" (19.2.9 NMAC).

20. DEFAULT AND CANCELLATION. Upon Lessee's violation of any of the terms, conditions or covenants contained herein, including the failure to pay the rent when due, Lessor may cancel this Lease after providing Lessee thirty (30) days' notice of the default by registered mail. The mailing of such notice as herein provided shall constitute notice of Lessor's intention to cancel the Lease and no proof of receipt of such notice shall be necessary in order for Lessor to enter Lease cancellation thirty days after the mailing of the notice if Lessee has not cured the default to Lessor's satisfaction within the thirty day period. Lessee agrees that if the New Mexico First Judicial District Court determines that Lessee has breached any of the terms, conditions or covenants of this Lease, Lessee shall pay the costs incurred by Lessor in litigating the default, including reasonable attorney fees. In the event of a breach of the terms of this Lease by the Lessee, the Lessor also shall have all remedies available at law or equity.

21. WAIVER. No employee or agent of Lessor has the power, right or authority to orally waive any of the terms, conditions, or covenants hereof and no waiver by Lessor of any of the terms, conditions or covenants hereof shall be effective unless in writing and executed by Lessor. Lessor's waiver of Lessee's breach or default of any of the terms, conditions or covenants hereof shall not constitute or be construed as a waiver of any other or subsequent breach or default by Lessee. The failure of Lessor to enforce at any time any of the terms, conditions or covenants hereof or to exercise any option herein provided, or to require at any time performance by Lessee of any of the terms, conditions, or covenants hereof shall not constitute

or be construed to be a waiver of such terms, conditions, or covenants, nor shall it affect the validity of this Lease or any part thereof, or Lessor's right to thereafter enforce each and every such term, condition and covenant.

22. COMPLIANCE WITH LAWS. Lessee, their heirs, assigns, agents and contractors shall fully comply with all federal, state, county and municipal laws, regulations, rules, ordinances and requirements, applicable to the Leased Premises or to Lessee's operations thereon, including but not limited to all applicable laws governing water; endangered or threatened species; hazardous materials; environmental protection; land use; health and safety; cultural, historic or archeological / paleontological properties; waste; trespass; and all New Mexico State Land Office Rules and Regulations, including those that may be hereafter promulgated; except that in the event of a conflict between a provision of this Lease and other laws, the more stringent Lease provision controls. Lessee's obligations under this paragraph include but are not limited to compliance with Section 19.6.5 NMSA (1978), requiring a lessee of state trust land to protect the Leased Premises from waste or trespass. Lessee's compliance with all laws, regulations and policy shall be at its own expense.

23. WAIVER, RELEASE, AND PROTECTION OF THE LEASED PREMISES. Lessee is leasing the Leased Premises AS IS based on Lessee's own inspection and investigation of and judgment regarding the Leased Premises. Lessor makes no warranties or representations of any kind or nature with regard to the Leased Premises or with regard to this transaction. This provision shall survive the termination, cancellation, relinquishment or assignment of this Lease.

A. If accidental discharge, release, spill, or fire or any other event having environmental consequence occurs, including damage related to the transport or use of produced water, Lessee agrees to provide notice to Lessor at the same time and in the same manner as Lessee is required to provide to the federal, state or local agency having responsibility for enforcing compliance with environmental laws, regulations and policy. Lessee agrees that, upon request by Lessor, Lessor shall have access to all reports, documents, test data and all other materials provided by Lessee to or received by Lessee from a governmental agency having responsibility for enforcing compliance with environmental or other laws.

B. In the event Lessor is required to incur any reasonable cost or expense to enforce the provisions of this Lease, including but not limited to consultants, engineers, soil, air or water sampling and attorney's fees and costs, Lessee shall be liable for and reimburse Lessor for said costs and expenses. Having made an initial determination of the scope of the breach of the provisions of the contract, Lessor shall extend to Lessee an opportunity to cure prior to incurring additional costs or expenses.

24. INDEMNIFICATION; INSURANCE.

A. Lessee shall hold harmless, indemnify and defend the State of New Mexico, Lessor and Lessor's employees, agents, and contractors, in both their official and individual capacities, from any and all liabilities, claims, losses, damages, or expenses, including but not limited to reasonable attorneys' fees, loss of land value, third party claims, penalties or removal, remedial or restoration costs arising out of, alleged to arise out of or indirectly connected with a) the operations hereunder of Lessee or Lessee's employees, agents, contractors, or invitees, b) the activities of third parties on the leased premises, whether with or without Lessee's knowledge or consent. In the event that any action, suit or proceeding is brought against Lessee, Lessee shall, as soon as practicable but no later than two (2) days after it receives notice thereof, notify the legal counsel of Lessor and the Risk Management Division of the New Mexico General Services Department by certified mail. This Paragraph 24(A) shall survive the termination, cancellation or relinquishment of this Lease, and any cause of action of Lessor to enforce this provision shall not be deemed to accrue until Lessor's actual discovery of said liability, claim, loss, damage, or expense.

B. During the Term of this Lease, Lessee shall, at Lessee's cost and expense, obtain and maintain at all times with insurers authorized to do business in the State of New Mexico commercial general liability insurance (in the broadest form then available in New Mexico) that names the Lessor ("New Mexico State Land Office") as an insured or as an additional insured, protecting the Lessor against claims for bodily injury, personal injury, death and property damage. Such an insurance policy must specifically provide coverage for the Lessor and its employees and agents in minimum amounts of \$200,000 for damage to or destruction of each legally described real property arising out of a single occurrence with an aggregate of \$1,000,000; \$1,000,000 per occurrence/aggregate for bodily injury, personal injury or death; and \$1,000,000 with respect to any one occurrence. Higher coverage for the Lessor may be reasonably required by the Lessor from time to time, including but not limited to increases needed to provide complete coverage for Lessor's maximum liability under the New Mexico Tort Claims Act, Section 41-4-1 et seq. NMSA 1978. Insofar as the above-described insurance provides protection against liability for damages to third parties for personal injury, death, and property damage, lessor shall be included as an additional insured, provided such liability insurance coverage shall also extend to damage, destruction and injury to Lessor-owned or Lessor-leased property and Lessor personnel, and caused by or resulting from work, acts operations or omissions of Lessee. Lessor shall have no liability for premiums charged for such coverage, and inclusion of Lessor as an insured party is not intended to, and shall not make Lessor a partner or joint venturer with Lessee in its operations.

C. The policy of insurance required to be maintained by Lessee pursuant to Paragraph 24(B) shall be reasonably satisfactory to Lessor and shall (a) provide for the benefit of Lessor that thirty (30) days prior written notice of suspension, cancellation, termination, modification, non-renewal or lapse or material change of coverage shall be given to all insured parties and that such insurance shall not be invalidated by any act or neglect of Lessor, nor by any foreclosure or other proceedings or notices thereof relating to the Land, leasehold or improvements, nor by occupation of the Land for purposes more hazardous than are permitted by such policy; (b) not contain a provision relieving the insurer thereunder of liability for any loss by reason of the existence of other policies of insurance covering the Land, leasehold or improvements against the peril involved, whether collectable or not; and (c) include a contractual liability endorsement evidencing coverage of Lessee's obligation to indemnify Lessor pursuant to Paragraph 24(A).

D. In addition, the Lessee must obtain at its own expense, insurance coverage adequate to protect its operations, property, employees and agents in amounts Lessee finds sufficient. Lessee shall be solely responsible for obtaining insurance policies that provide coverage for losses of Lessee-owned property, including improvements. Lessor shall not be required to provide such insurance coverage or be responsible for payment of Lessee's costs for such insurance.

E. Within ten (10) days after the execution of this Lease by Lessor and delivery to Lessee, Lessee shall deliver to Lessor original or duplicate certificates of insurance, insurance policies, and policy riders/endorsements evidencing all the insurance which is required to be maintained under this Lease by Lessee certifying that all requirements set forth herein have been complied with, and within ten (10) days prior to the expiration of any such insurance, other original or duplicate policies or certificates evidencing the renewal of such insurance. A certificate, policy, endorsement or rider which states that failure to give Lessor notice imposes no liability or obligation on the insurer shall not be in compliance with this Lease. For example, certificates or policies stating that the insurer shall "endeavor to notify" and that "failure to give such notice imposes no obligation" on the insurer are unacceptable to Lessor. Failure to comply with the insurance specifications in this Lease is a material breach of the Lease. Different types of required insurance may be written in one or more policies.

25. SCOPE OF AGREEMENT. This lease incorporates all the agreements, covenants and understandings between Lessor and Lessee concerning the subject matter hereof and all such agreements, covenants and understandings are merged into this written lease. No prior agreement or understanding

between Lessor and Lessee shall be valid or enforceable unless expressly embodied in this lease. In the event that any part of this Lease is determined to be unenforceable it is the intent of the Lessor and the Lessee that the remainder of the Lease remains in effect.

26. **AMENDMENT.** This Lease shall not be altered, changed or amended except by an instrument executed by both Lessor and Lessee.

27. **EXHAUSTION OF ADMINISTRATIVE REMEDIES.** In the event that Lessee is aggrieved by a decision of Lessor to cancel this Lease, Lessee shall within thirty (30) days after the date of such decision file an administrative contest pursuant to 19.7.64 NMSA (1978) and 19.2.15 NMAC. Lessee shall initiate no court action regarding this Lease except to appeal a final decision of the Commissioner of Public Lands rendered pursuant to such a contest proceeding, and as provided by 19.7.64 NMSA (1978).

28. **SUCCESSORS IN INTEREST; THIRD PARTIES.** All terms, conditions and covenants of this Lease and all amendments thereto shall extend to and bind the heirs, successors and assigns of Lessee and Lessor. There are no third party beneficiaries of this Lease.

29. **HOLDING OVER.** If Lessee enters upon the Leased Premises after the termination or cancellation of this Lease for any purpose, or leaves any equipment, buildings, materials, property or debris on the Leased Premises after the termination or cancellation of this Lease, the rent due Lessor for such entry or presence shall be \$129.55 for each day or any part of a day. Nothing contained herein shall be construed as the grant to Lessee of the right to enter the Leased Premises for any purpose after the termination or cancellation of this Lease without the prior written consent of Lessor.

30. **LEASE ENTERED INTO UNDER STATE LAND OFFICE RULE 9.** This Lease is governed by New Mexico State Land Office Rule 9, "Business Leasing" (19.2.9 NMAC), and the provisions of that rule control the interpretation and application of the terms of this Lease.

Executed in duplicate.

LESSEE:

MATADOR PRODUCTION COMPANY



Signature

CRAIG N. ADAMS

Print Name

EXECUTIVE VICE PRESIDENT

Title

LESSOR:

NEW MEXICO COMMISSIONER OF
PUBLIC LANDS



STEPHANIE GARCIA RICHARD

Date

[The remainder of this page intentionally left blank.]

ACKNOWLEDGMENT IN AN INDIVIDUAL CAPACITY

State of _____

County of _____

This instrument was acknowledged before on _____ (date) by
_____ (name).

(seal)

(Signature of notarial officer)

My commission expires: _____

ACKNOWLEDGMENT IN A REPRESENTATIVE CAPACITY

State of TEXAS

County of DALLAS

This instrument was acknowledged before on May 18, 2020 (date) by
CRAIG N. ADAMS (name) as EXECUTIVE VICE PRESIDENT (title) of
MATADOR PRODUCTION COMPANY (name of party on behalf of whom instrument is
executed).

(seal)

(Signature of notarial officer)

My commission expires: 9/28/2023



New Mexico State Land Office Best Management Practices for Surface Users

1. **Design.** To ensure public safety and the protection of trust resources, projects should be designed to minimize new surface disturbance and should be in compliance with New Mexico State Land Office (NMSLO) best management practices for surface users. The Commissioner of Public Lands may review design plans, and may determine whether professional engineering design or construction oversight is necessary. The Commissioner may waive or include any additional specific best management practices as necessary in the best interest of the trust.

- a. **Design.**

- i. No new surface disturbance will be permitted in riparian areas, wetlands, playas or floodplains. There will be a 150-foot setback from the outer wet edges (normal high water mark) of wetlands and playas, and a 50-foot setback from the 100-year flood stage of the floodplain associated with riparian areas. Boring under water features may be allowed if designs are approved.
- ii. All efforts shall be made to minimize new surface disturbance: new construction shall be located in pre-existing disturbed areas, including existing roadbeds, rights-of-way, or in pre-existing or dedicated development areas and corridors.
- iii. No new surface disturbance will be permitted within 50-feet of the normal high water mark of ephemeral drainages, floodways, arroyos or other short duration flow channels, except when crossing these channels and drainages. Drainage crossings will be perpendicular to flow, and will be built to accommodate flood events and to control erosion.
- iv. Design plans shall:
 1. Include a cadastral survey;
 2. Minimize new surface disturbance by locating in pre-existing disturbance areas, or designated development areas or corridors, and designing for minimum necessary area of impact according to expected purpose and use;
 3. Avoid wetlands, known critical habitat and protected areas;
 4. Avoid steep slopes (>12%); grades from 4-10% are preferred for managing drainage; roads and rights-of-way are best placed at the toe of slopes where cross slope is between 5% and 40%;
 5. Preserve as much natural vegetation and living root structure as possible. Use blading only where not to do so would create an unsafe work environment. Mow, or cut and shred vegetation, rather than blading whenever possible. Grubbing is less destructive than blading, and may be used as an alternative where mowing is not possible; in mowing or grubbing, if mesquite or other colonizing non-desirable vegetation is involved, include an herbicide treatment to inhibit spread that may be caused by mowing or

- grubbing;
6. Avoid alteration of natural drainage patterns;
 7. Provide adequate surface drainage; as grade steepens drainage features, such as water bars, must be closer together; drainage features on fine grained soils should be closer together;
 8. Reduce impervious surfaces by limiting area of impact;
 9. Account for specific site topography, soil type, drainage and hydrology, i.e. fit construction to the natural terrain by conforming to the ground, rolling the grade, minimizing cuts and fills, and managing for erosion; medium to coarse textured soils (sand-sized particles and larger) are best suited to low-standard rural roads;
 10. Account for cultural resources at least in accordance with minimum standards set forth in NMSLO policy;
 11. Account for biological resources at least in accordance with minimum standards set forth in NMSLO Policy;
 12. Include a spill containment and prevention plan where hazardous materials are involved, including requirements for berms and lining where necessary;
 13. Include a storm water pollution and prevention plan where hazardous materials are involved and the site falls within a 100-year flood plain of any major drainage;
 14. Include an erosion control plan for drainage crossings, head-cuts, gullies and rills, including soil stabilization structures, ditches, water-bars, and the size and location of culverts and bridges;
 15. Include a reclamation plan detailing the removal of improvements, soil stabilization and the re-vegetation process;
 16. Include an access control plan;
 17. Use only native weed-free certified seed for reclamation;
 18. Use only certified freshwater (<140 ppm chloride, certified safe drinking water) for reclamation;
 19. Use local materials where possible;
 20. Include a noxious weed prevention plan;
 21. Include a dust abatement plan;
 22. Address clearing, grading, and cut and fill processes;
 23. Address crown, inslope, outslope and shoulder design (roads);
 24. Address trenching and boring design, including depth, casing, core sampling, valve location and access management (pipelines);
 25. Include professional engineer plans and specifications for bores, bridges, or other major construction elements that present a potential hazard to the public or environment;
 26. Address span and pole design (powerlines);
 27. Define use, location and size of temporary work space, temporary storage and turnouts;
 28. Address logistics of construction;
 29. Address all pertinent state and federal regulations.

2. **Construction.** Construction involves all aspects of implementation of the design.
- a. Construction Practices:** During construction the lessee shall:
- i. Control access to the construction site;
 - ii. Control unauthorized use of space adjacent to permitted rights-of-way, easements and lease use areas;
 - iii. Maintain temporary erosion control structures, such as silt fencing to prevent sediment flow during construction;
 - iv. Implement dust abatement plan and use only certified freshwater (<140 ppm chloride, certified safe drinking water) on areas that will be revegetated;
 - v. When requested by the Commissioner, engage a compliance inspection officer to monitor quality control and compliance with NMSLO best management practices;
 - vi. Sample, test and monitor to ensure construction materials meet design specifications;
 - vii. Dispose of unsuitable or excess construction or excavation material in approved locations to minimize adverse impacts to water quality or other resources; construction waste and debris will not be buried on state trust land without express permission from the Commissioner
3. **Maintenance.** Roads should be maintained routinely during active use and after major storm events to ensure that road surfaces are intact and serviceable and drainage structures are functioning properly. Pipeline, transmission line and other exclusive rights-of-way should be monitored routinely and maintained when necessary to ensure that public access is closed, drainage is functioning properly, and that reclamation efforts are successful. Operational equipment, work spaces, facilities, and structures shall be maintained routinely during use to function properly and to minimize adverse impacts to the public or the environment. Reclaimed areas, including temporary work spaces, yards, pads, pits, roads, pipelines, transmission lines or other lease areas, should be monitored for at least two years and retreated where necessary to manage erosion, noxious weeds and seeding success. Lessees sharing a right-of-way will be held jointly and severally responsible for maintenance of the right-of-way. The NMSLO encourages holders of shared rights-of-way to develop maintenance agreements.
- a. Maintenance Practices:** At all times, lessees must stay within the length and width of the permitted right-of-way. If maintenance requires work outside the boundaries of the right-of-way, the lessee must seek an amendment to the right-of-way or a right-of-entry for reclamation or maintenance:
- i. Grade and shape roadway surfaces to maintain distinct inslope, outslope or crown shape to move water effectively off the road surface;
 - ii. Compact graded roadway surfaces to preserve hard driving surface;

- replace surface material when needed; implement dust abatement plans;
- iii. Fill ruts and potholes with gravel or compacted fill or remove ruts through rolling dips and water bars; reshape structures to maintain proper function;
- iv. Clean ditches and reshape when necessary to allow adequate flow capacity;
- v. Remove debris from the entrance of culverts to prevent plugging and overtopping; check for signs of damage;
- vi. Replace or repair rock armor, erosion control structures, or vegetation used for slope protection, scour protection or energy dissipation;
- vii. Inspect and repair fencing, gates, cattle-guards and other access control structures;
- viii. Inspect facilities, structures, equipment and operations for leaks, hazardous material releases, hazardous conditions, and proper functioning condition;
- ix. Inspect reclamation, revegetation and noxious weed treatments and re-treat as necessary to maintain proper functioning of erosion control and establishment of native vegetation.

4. Reclamation. See Attachment A for Sample NMSLO Surface Reclamation Plan.

- a. **Reclamation Objectives:** To reduce and prevent erosion, remove contaminants and contaminated materials, restore clean soils, restore native plant diversity and abundance, restore and maintain hydrological regime, and restore and maintain productive habitat for livestock and wildlife;
- b. **Applicability:** These Reclamation Requirements are applicable to all reclamation activities on state trust lands including: hazardous materials spills/releases, site closure for oil and gas, mineral and business leases, plug and abandon site reclamation, mine site reclamation, pit, pad, or pond reclamation, illegal dump reclamation, road and pipeline reclamation, dairy farm or other agricultural impact reclamation, and any other clean up or reclamation activity on state trust land;
- c. **Access:** If the spill/release or reclamation project extends beyond the lease boundary or permitted right of way, the responsible party shall contact the NMSLO Rights Of Way Division and **obtain a remediation right-of-entry**;
- d. **Compliance:** Before commencing any new ground disturbing activity, the responsible party shall:
 - i. Conduct an archaeological survey of the impacted area, or verify that the area has already been surveyed and that no cultural properties will be impacted by ground disturbing activities;

- ii. **Immediately stop all ground disturbing activities and contact NMSLO for further direction, if cultural properties have been impacted by a spill/release or reclamation project;**
- iii. Verify compliance with NMSLO biological and cultural resource policies for the area to be reclaimed; conduct surveys where necessary;
- iv. Verify compliance with all state and federal regulations, including but not limited to storm water pollution and prevention, air quality control, and hazardous materials disposal;

e. Hazardous Material Spill/Releases:

- i. Oil and Gas Activity:
 - Upon discovery of any oil and gas related hazardous material spill or release, either current or historic, the responsible party shall:
 - immediately notify OCD and NMSLO;
 - File C-141 form with OCD;
- ii. Other Spill/Releases:
 - Upon discovery of any non-oil and gas related hazardous material release, including mine waste, either current or historic, the responsible party shall:
 - immediately notify NMED and NMSLO;

f. **Delineation:** Upon discovery of contaminated soils, the responsible party shall delineate the horizontal and vertical extent of the contamination; submit a delineation plan for approval by the NMSLO; for oil and gas related contamination, the NMOCD must also approve the delineation plan; the NMSLO may review NMOCD approved plans for adequacy of sampling related to restoration of surface conditions; for non-oil and gas related contamination, the NMED may require delineation and monitoring related to surface and ground water impacts; the NMSLO may require any necessary sampling or reclamation related to the restoration of surface conditions;

g. **Reclamation Plan:** A reclamation plan shall be submitted with all lease applications involving surface disturbance. In the event of a spill or hazardous materials release, the responsible party shall submit a reclamation plan for approval by the NMSLO within 30 days of completion of delineation. In all other situations, the responsible party must submit a reclamation plan to the NMSLO within 30 days of receiving a notice to reclaim. The reclamation plan shall address each of the matters cited below; these best management practices shall constitute minimum requirements for reclamation plans submitted under the following rules: leasing for general mining 19.2.2.24, leases and permits for caliche, gypsum, clay, sand, gravel, stone, shale, perlite, volcanic deposits and borrow dirt 19.2.5.9(B); unless otherwise permitted by the NMSLO, the reclamation plan and all earthworks required for reclamation must be approved and completed within 6

months of completion of construction for any right of way lease, or improvement under an agricultural lease, or within 6 months of closure or final use of any business lease, mineral lease, or oil and gas lease;

- h. **Removal/Containment:** The responsible party will remove and replace any contaminated soils, including contaminated caliche or base course. Contaminated soils and caliche shall be disposed of only in state permitted disposal locations such as land farms or hazardous disposal sites, and in accordance with state and federal regulations. Contaminated soils shall be removed at least to the rooting zone. Removal shall be based on site delineation, but in areas of deep saturation and deep soils this depth is typically four feet; removal depth may be less in shallow soils. If any contaminated soil remains at the site the reclamation plan must address containment, including the potential for the contaminant to wick upward into the rooting zone or downward toward groundwater. If complete removal is impossible, the responsible party may apply to the NMSLO for a variance to stabilize and contain the hazardous material that cannot be removed. If the NMSLO agrees, a stabilization and containment plan may replace or supplement the removal and replacement plan. In addition to the removal of contaminated soils, the responsible party will remove all uncontaminated caliche or base course.
- i. **Soil Replacement:** The responsible party will replace contaminated soils, caliche or base course, and uncontaminated caliche or base course, with certified clean top soil; replacement soils should have comparable structure and chemistry to healthy, native undisturbed soils in the vicinity.
- j. **Trash and Debris:** Unless equipment is to be re-used onsite, the responsible party shall remove any trash, debris, garbage, rubbish, junk, scrap, or broken or contaminated equipment, such as pipelines, plastic lining, surface flowlines, tanks, scrap materials of any kind, or other equipment and shall dispose of all such trash and debris in accordance with state and federal regulations within 30 days of final use or completion of construction; no hazardous substances, trash or litter will be buried or placed in pits on state trust land without express written permission of the Commissioner.
- k. **Surface Preparation:** The responsible party will contour the ground surface to blend in with the surrounding topography to allow the natural hydrology of the basin to function without impediment or impact; no major depressions or pits will be left that will trap water or cause ponding except where the project involves a mining pit where there is no possible outlet, slopes will not exceed 3:1 (run to rise).
- l. **Erosion Control:** Where active transportation of sediment through gullying, headcutting, slumping or deep or excessive rills (greater than 3 inches deep)

occurs within the lease area or within the adjacent area of impact, the responsible party will install erosion control structures to repair and control gullies, head-cuts, rills, and other forms of sediment movement;

- i. Erosion control structures shall be designed to restore natural hydrological function and flood regime, and to the extent possible should use local rock or bio-degradable materials and low-energy, minimum-necessary designs;
 - ii. Erosion control structures may include, but are not limited to, one rock dams, rock mulch rundowns, zuni bowls, media lunas, swales, berms, terraces, wattles, rock or log mats, hay mulch, gabions, bales or other stabilizing enhancements to control erosion;
- m. **Drainage Control:** Where ephemeral, intermittent or permanent water flow-ways or drainages cross, intersect or bisect a lease, the responsible party shall install drainage control structures to manage water flow, especially across roads, pipeline rights of way, or other structures that may interfere with natural drainage;
 - i. Drainage control structures shall be designed to mimic natural hydrological function and flood regime as much as possible so as not to increase the erosional impact of hydrologic flows to the structure or to the upstream or downstream landscape; drainage control designs shall be engineered or built in consultation with the NRCS and approved by the NMSLO;
 - ii. Drainage control structures may include but are not limited to road bars, culverts, water bars, parallel and lateral ditches, drains, and low water crossings;
- n. **Seedbed Preparation:** All disturbed soils within the lease area will be revegetated. The responsible party will prepare the seedbed in consultation with the NMSLO to maximize potential for success. This may include, but is not limited to, a combination of watering with certified fresh water (<140 ppm chloride), mechanical packing to consolidate loose soils, disking or ripping to loosen compacted soils (up to 18 inch depth with furrow spacing of 2 feet), crimping hay mulch into the soil (2 tons/acre), furrowing or imprint rolling to create microhabitats, scarifying (minimum 4 inch depth), adding soil amendments, contouring and/or importing top soil. Note: Caliche is not top soil and should not be mixed or flipped into the top soil.
- o. **Revegetation:** The responsible party will seed the prepared seedbed with a drill seeder or hydraulic seeder with different sized seed boxes; unless otherwise authorized by the NMSLO, hydro-seeding will be used on 3:1 slopes or greater; all disturbed areas will be seeded with the seed mixture(s) provided or approved by the NMSLO; the seed mixture will be planted in the amounts specified in pounds of pure live seed per acre; the seed will contain no primary or secondary noxious weeds; commercial seed will be either certified or registered seed; the seed drill will be equipped with a depth regulator, and seed will be planted at the depth prescribed by the NMSLO; the seed mixture will be evenly and uniformly planted over the disturbed area; seed mixes should be provided in bags separating

seed types into size categories, to ensure that the appropriate seed drill box is used for each species; broadcast seeding will only be allowed when no other option is available; where broadcast seeding, the area should be disked with a tandem, double-disk harrow, one day prior to broadcast seeding and the lbs/acre are to be doubled; seeding will be conducted no more than two weeks following completion of final seedbed preparation; seeding should take place at the beginning of the growing season prior to the monsoon season unless otherwise directed; seeding will be repeated until a satisfactory stand is established as determined by the NMSLO; evaluation of growth will not be made before completion of at least one full growing season after seeding; seeding will be repeated until a satisfactory stand is established.

- p. **Noxious Weeds.** The responsible party will prepare a noxious weed plan in consultation with the NMSLO and noxious weeds will be monitored and treated on an annual basis until controlled.
- q. **Access Control.** Unless otherwise authorized by the NMSLO, the responsible party will close all reclamation areas to public access; private access points will be gated, fenced and signed; unauthorized or trespass access points will be permanently closed and signed;
 - i. **Gate and Fencing Specifications:** Unless otherwise directed by the NMSLO, a locked metal gate with 4-inch H-braces and a permanent fence extending at least 100 feet from either side of the gate, or to the next adjacent gate, will be installed to block public access to all closed reclamation sites; fence will be constructed with steel T-posts on 16-foot spacing, with stays every 8 feet and 4 strands of barbed wire; the top wire should be set at 42 inches above the ground surface; inline braces will be used at intervals not to exceed 660 feet; corners will be braced and set in concrete; fence wire will be attached on the outside of the T-posts with wire ties;
 - ii. **Permanent Closure Specifications:** Dirt berms, permanent hard barriers or rock barricades will be installed to block unauthorized access points to reclamation sites; berms and barriers will be at least 3 feet high and will extend the width of the access point; berms will be hard packed; barriers and barricades may be constructed of metal pipe rail, concrete, or rock and may be used in combination with berm work to ensure closure of an access point;
 - iii. **Signage:** Signs should be noticeably visible and should clearly state that public access is not authorized.
- r. **Monitoring.** The responsible party will monitor the reclamation site annually until relinquished by the NMSLO; prior to relinquishment, the NMSLO may require supplemental clean up, maintenance of erosion control structures, additional reseeding efforts, or noxious weed treatments to ensure success of reclamation; the NMSLO may request detailed annual monitoring reports

depending on the severity of the situation.

- s. **Reporting.** The NMSLO may require weekly updates during the course of the initial reclamation work; weekly updates will include a brief narrative statement of work completed with photo documentation; upon completion of the initial reclamation work, the responsible party will notify the NMSLO that the site is ready for inspection; annual monitoring reports may be required depending on the severity of the situation.
- t. **Relinquishment:** The NMSLO will inspect the initial reclamation work upon completion and will provide the responsible party with a statement indicating that the initial work has been completed as required and detailing any follow up work that may be necessary prior to relinquishment; notice of relinquishment will be provided upon complete satisfaction of all NMSLO reclamation requirements.

5. Resources.

Reducing Erosion from Unpaved Rural Roads in New Mexico, A Guide to Road Construction and Maintenance Practices; State of New Mexico Natural Resources Department Soil and Water Conservation Division, November 1983.

The Gold Book, Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development; Bureau of Land Management, Fourth Edition—Revised 2007.

New Mexico Forest Practices Guidelines; Energy, Minerals and Natural Resources Department, Forestry Division.

Low-Volume Roads Engineering BMPs; https://www.fs.fed.us/t-d/programs/forest_mgmt/projects/lowvolroads/ch4.pdf

Water Harvesting from Low-Standard Rural Roads; Bill Zeedyk, A Joint Publication of The Quivira Coalition, Zeedyk Ecological Consulting, LLC, The Rio Puerco Management Committee—Watershed Initiative, and the New Mexico Environment Department—Surface Water Quality bureau, April 2006.
http://altarvalleyconservation.org/wp-content/uploads/pdf/1597-A_Good_Road_Lies_Easy_on_the_Land.pdf

Revegetation Guidelines Handbook for Southeastern New Mexico, New Mexico State Land Office, July 2018.

6. Authorities.

ROW Rule: (19.2.10 NMAC)

A ROW lessee shall file an affidavit of completion within 60 days of completion. 19.2.10.21 NMAC

ROWs may be used only for authorized uses as granted (e.g. a pipeline or powerline ROW may not be used as a public road). 19.2.10.22 NMAC

The CPL may terminate any ROW for failure to comply with any term or condition of the grant. 19.2.10.26 NMAC

Anyone constructing a ROW, in consultation with the CPL, must take all steps necessary to preserve and protect the natural environmental conditions of the land including reclamation and re-vegetation. 19.2.10.28 NMAC.

Road Rule: (19.2.20 NMAC)

All roads constructed on state trust lands shall be constructed in accordance with the minimum requirements described in 19.2.20.10 NMAC and maintained in accordance with the standards described in 19.2.20.11 NMAC. 19.2.20.9(A) NMAC.

Construction and maintenance of these roads will be done in a manner that insures that authorized traffic remains within the right-of-way and erosion damage is mitigated. 19.2.20.9(C) NMAC.

Road Construction Standards: (19.2.20.10 NMAC)

Width. 14' single lane, 20' double lane, maximum grade 10% without engineered design. 19.2.20.10(A) NMAC.

Drainage. Drainage control shall be ensured through the use of dips, turnouts, and culverts etc. Drainages will be constructed in such frequency necessary to prevent headcuts or other forms of accelerated erosion or damage on adjacent areas. 19.2.20.10(A) NMAC.

Culverts. Culverts shall be used on grades in excess of 10% and all major drainages and on roads when dips are not feasible.

Road Surfacing: Roadbeds should be surfaced where all weather access is needed. Roadbeds should be reasonably smooth, free of ruts, chuckholes, rocks, slides, washboards, dust pockets, soft spots or other driving hazards.

Fencing: 4-strand barbed wire, 12-inch spacing.

Road Maintenance Standards: (19.2.20.11 NMAC)

Lessees shall be responsible for preventative and/or corrective road maintenance, including roadbeds, shoulders, ditches, culverts and drainages, fences, gates and cattle guards, ford and low water crossings. 19.2.20.11 NMAC.

Reclamation: (19.2.20.12 NMAC)

The seedbed will be prepared and the roadbed reseeded. 19.2.20.12 NMAC.

Oil and Gas Rule: (19.2.100 NMAC)

Site Development: All access roads shall be built, maintained and reclaimed in accordance with 19.2.20 NMAC.

Review and Inspection: State land office personnel or oil conservation division personnel may, from time to time, recommend actions necessary to comply with reasonable use of the surface and prudent operator standards. (19.2.100.66(D) (1) NMAC).