MINING AND MINERALS DIVISION ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Permit No. MK039MN ("Permit") is issued by the Director of the Mining and Minerals Division ("MMD") of the New Mexico Energy, Minerals and Natural Resources Department to:

Whose correct address is:

Miocene, LLC 100 Fillmore Street, Suite 500 Denver, CO 80206

("Permittee") in order to conduct mining, exploration and reclamation at the Brie I Mine, located in Section 11, Township 19 North, Range 6 West, McKinley County, New Mexico.

Section 1. STATUTES AND REGULATIONS

- A. This Permit is issued pursuant to the New Mexico Mining Act, NMSA 1978, §69- 36-1, <u>et</u> seq. (1993, as amended through 2011).
- B. This Permit is subject to all applicable regulations of the New Mexico Mining Act ("Act"), New Mexico Mining Act Rules, Title 19, Chapter 10 of the New Mexico Administrative Code ("NMAC" or "Rules"), and any other regulations which are now or hereafter in force under the Act; and all such regulations are made a part of this Permit by this reference.

Section 2. PERMIT APPLICATION PACKAGE

- A. The Permit Application Package ("PAP") consists of the following:
 - 1. A Subpart 3 Minimal Impact New Mining Operations Permit Application, submitted on May 3, 2013;
 - 2. Right-to-enter information provided by the Permittee through a signed and executed document entitled *Memorandum of Surface Humate Mining Lease* ("Mining Lease") received by MMD through electronic mail messaging on June 27, 2013.
 - 3. An access agreement ("Access Agreement") providing MMD access to the Permit Area by the private surface estate owner and private mineral estate owner, received by MMD through electronic mail messaging on August 16, 2013.

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Any correspondence subsequently submitted to MMD, by the Permittee or its representatives, can be found at MMD offices within the Division's files, and is entitled *Brie I Mine* or similar.

Section 3. PERMIT AREA

- A. The Permittee is authorized to conduct mining, exploration and reclamation operations only on those lands that are specifically designated and authorized within the permitted area ("Permit Area") and within the proposed design limit. For this Permit, the Permit Area is defined as the entirety of Section 11 (640 acres), Township 19 North, Range 6 West in McKinley County, New Mexico. For a minimal impact new mining operation, the design limit, including any access roads to the mine site and any future exploration activities, is no more than ten (10) acres of disturbed land.
- B. The Permit Area is on land managed by a private surface owner and a private mineral estate owner ("Landholder").

Section 4. FINDINGS OF FACT

The Permit Application Package

- A. The PAP is complete and demonstrates that the proposed operation will meet the performance and reclamation standards and requirements of Subsection D, Paragraphs 6 through 8, of §19.10.3.304 NMAC.
- B. The Permittee has paid the initial permit application fee of \$1,000.00, as required by Subsection D of \$19.10.2.201 NMAC.
- C. The PAP provides that the proposed operation meets the standards of a "Minimal impact mining operation," addressed in §19.10.1.7.M(2) NMAC, and in §19.10.3.304 NMAC, and does not fall within the exclusions in §19.10.1.7.M(2) NMAC. MMD and the other agencies, pursuant to §19.10.3.304.H NMAC, reviewed the minimal impact designation.
- D. The proposed and approved Post Mining Land Use ("PMLU") is designated as grazing and wildlife. The reclamation plan described in the PAP, subject to conditions in this Permit, demonstrates that the work to be done will reclaim disturbed areas within the Permit Area to a condition that allows for the establishment of a self-sustaining ecosystem appropriate for the life zone of the surrounding areas.
- E. The term of the Permit is governed by Subsections A, C and D of §19.10.6.607 NMAC.

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Right-To-Enter / Property Access Information

- F. The Permit does not grant or create any property rights. Nor does MMD, by issuing this Permit or otherwise, make any comment on the surface or mineral rights that the Permittee may or may not have in the area covered by the Permit; only that the Permittee has provided a statement of basis on which the Permittee has a right-to-enter the property to conduct mining, exploration and reclamation. Permittee is solely responsible to take whatever steps are necessary to ensure that Permittee has property rights sufficient to support the activities contemplated by the Permit.
- G. The surface and mineral estate is owned by private entities, the identity of which were requested by the Permittee to remain confidential. The Permittee has satisfactorily demonstrated its right of access pursuant to §19.10.304.D(1) NMAC through an active and executed Mining Lease provided to MMD. The Permittee has also requested that the Mining Lease be held by MMD as confidential.

General Information Regarding the Permittee

- H. Neither the Permittee, entities that are directly controlled by the Permittee, nor entities that directly control the Permittee: (i) are in violation of the terms of another permit issued by the Director or in violation of a substantial environmental law or substantive regulation, as those terms are defined in §19.10.3.304.J(4)(a) NMAC at another mining operation in the United States, (ii) have forfeited or had forfeited financial assurance required for another mining, reclamation or exploration permit in the United States, or (iii) have demonstrated a pattern of willful violations of the Act or other New Mexico environmental statutes.
- I. The Permittee has signed a notarized statement agreeing to comply with the requirements of the Permit, the Rules, and the Act, and allows the Director to enter the Permit Area for the purpose of conducting inspections.
- J. The Permittee and Landholder have signed an Access Agreement allowing the Director to enter the Permit Area for the purpose of conducting inspections.

MMD's Request for Comments to the Agencies and Tribes

K. MMD provided the agencies (the New Mexico Environment Department ("NMED"), the Department of Game & Fish, the State Forestry Division, the State Historic Preservation Office, and the Office of the State Engineer) with a copy of the PAP and requested comments from the agencies.

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- L. The Secretary of NMED has provided a written determination, received by MMD on July 12, 2013, stating that the Permittee has demonstrated that the operation permitted hereunder is likely to have minimal environmental impact if operated and reclaimed in accordance with the approved permits and NMED comments, and will be expected to achieve compliance with all applicable air, water quality and other environmental standards if carried out according to the reclamation plan. This written determination addresses applicable standards for air, surface water and ground water protection enforced by or for which NMED is otherwise responsible.
- M. MMD provided the PAP to the following tribal entities and requested review and comment: the Hopi Tribe and the Navajo Nation. Comments from the Hopi Tribe were received by MMD.
- N. MMD provided the Permittee with MMD's comments and comments provided by the other agencies in a letter dated July 22, 2013. The comments have been satisfactorily addressed by the Permittee.

Financial Assurance

- O. The Permittee has provided satisfactory financial assurance, as required by §19.10.3.304.J(3) NMAC, in the total amount of \$45,600.00:
 - 1. \$35,100.00 for the indemnification of ten (10) acres to complete the surface reclamation plan described in the PAP; and
 - 2. \$10,500.00 to complete abandonment of up to 150 boreholes advanced through exploration activities within the Permit Area.
- P. Financial assurance has been provided through Irrevocable Standby Letter of Credit No. SC8362, issued by Amegy Bank N.A., P.O. Box 27459, Houston, TX 77227-7459 on July 31, 2013 in the amount of \$45,600.00.

Section 5. COMPLIANCE REQUIREMENTS

A. The Permittee shall comply with the statutes and regulations referred to in Section 1 of this Permit and with all other applicable state or federal statutory, regulatory or permitting requirements. The issuance of this Permit does not relieve the Permittee from the responsibility of complying with other state and federal requirements and standards.

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B. Since the Permit Area is on private land, the expiration or termination of Landholder authorization to conduct mining and/or exploration operations on the property automatically suspends the Permittee's authority to continue mining and exploration operations on the property. Such suspension does not include reclamation operations by the Permit issued under §19.10.3 NMAC.

Section 6. AGENCY RIGHT OF ENTRY

- A. The Permittee shall allow the authorized representatives of the Director, without advanced notice, upon presentation of appropriate credentials, and without delay:
 - 1. to enter upon, or through, any mining or reclamation operation at any time, as provided for in §19.10.3.304.J(5) NMAC and §19.10.11.1101.E(1) NMAC for the purpose of conducting inspections and to determine if the Permittee is in compliance with the Permit requirements and conditions; and
 - 2. at reasonable times, and without delay, have access to and copies of any records associated with permitting and compliance required by the Act, §19.10 NMAC or the Permit.
- B. In the event that the Landholder revokes, terminates, or otherwise prevents or impedes access to the Permit Area by the authorized representatives of the Director, the Director will notify the Permittee. The Permittee shall immediately cease all mining operations within the Permit Area and will not resume mining operations until such authorized representatives' access to the Permit Area has been restored.
- C. In the event that the Director's authorized representatives' access to the Permit Area is not restored by the Landholder within 60 days after the Director has given Permittee the notice provided for in subparagraph B of this Section 6, the Permittee shall immediately begin reclamation of the Permit Area.

Section 7. PERMIT COVERAGE

- A. This Permit shall be binding on any person or persons conducting mining, exploration and reclamation operations under this Permit.
- B. Upon either (i) MMD's termination of this Permit or (ii) the full, final and complete release of all financial assurance relating to both Permit No. MK038MN and MK039MN, MMD will issue a signed and notarized Release of Rights Under Access Agreement, the form for which is attached hereto as Appendix A.

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Section 8. ENVIRONMENTAL COVERAGE

A. The Permittee shall take all necessary steps to minimize any adverse impact to the environment or public health and safety resulting from non-compliance with any term or condition of the Permit, the Rules or the Act.

Section 9. COMPLIANCE WITH THE PERMIT & PAP

- A. The Permittee shall conduct mining, exploration and reclamation operations only as described in the approved PAP, this Permit, and any other modifications approved by the Director, pursuant to §19.10.6.608 NMAC. The Permittee shall comply with the statues and regulations in Section 1 of this Permit, the applicable regulatory and permitting requirements, and any and all conditions that are incorporated into this Permit.
- B. Where the PAP is ambiguous or in apparent conflict with the provisions outlined in this Permit, the language of this Permit will supersede the PAP.

Section 10. GENERAL OBLIGATIONS AND CONDITIONS

Description of Project / Authorized Disturbances

- A. Within the approved Permit Area, the Permittee will stage a conventional surface pit humate extraction operation and access road. All mined humate will be hauled by truck off-site to be processed. Overburden and other excavated materials not hauled by truck off-site will be returned to the surface pit. Mining and reclamation is anticipated to occur in 10 acre phases as described in the PAP.
- B. Pursuant to §19.10.3.304.A, the Permittee will conduct mining and exploration activities within 10 acre design limits. The Permittee shall conduct reclamation to maintain a total disturbed area that does not exceed 10 acres. The Permittee is obligated to complete reclamation of all disturbed areas upon completion of mining and/or exploration or upon termination or withdrawal of approval to operate by the landholder.
- C. Exploration activities allowed under this Permit are subject to the following conditions:
 - 1. phased advancement of up to a maximum of 150 drill holes per phase to a maximum depth of 20 feet below ground surface;
 - 2. surface reclamation, and borehole plugging, of areas disturbed by exploration activities shall be performed as soon as practicable unless the area is anticipated

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to be engulfed by the pit in the reasonably foreseeable future. Surface reclamation of exploration disturbance shall be performed in accordance with techniques described in the PAP;

- 3. all boreholes shall be abandoned from total depth to within 12 feet of the original ground surface or the collar of the hole (whichever is lower) with high-density bentonite clay that is hydrated in place, followed by 10 feet of neat cement, followed by 2 feet of topsoil or topdressing, unless the borehole will be engulfed by the pit within 1 year from installation;
- 4. notification of the anticipated start and finish dates for exploration activities shall be provided to MMD prior to commencement of exploration activities.
- D. The Permittee shall maintain this Permit until reclamation is complete at the site.

Stockpiled Materials

E. Prior to conducting humate removal activities, the area to be mined shall be cleared and grubbed and the material stockpiled for future use as mulch. Additionally, the top 6 to 12 inches of topsoil shall be removed and stockpiled. Subsequent removal of overburden below 6 to 12 inches shall be stockpiled separately from the stockpiles of topsoil and grubbed material. All stockpiles shall be segregated. Topsoil stockpiles will be located and protected so that wind and water erosion to this resource are minimized.

Reclamation Requirements

- F. Backfilling of the surface pit with overburden and rough grading shall occur concurrently during mining. When mining is complete, the entire area shall be regraded and recontoured to approximate the contour of the surrounding terrain.
- G. Stockpiled topsoil will be applied as top dressing over the entire area, and the area shall be scarified and seeded. Scarification shall consist of ripping, furrowing or disking.
- H. Any areas where vegetation is disturbed will be reseeded utilizing the following weed free, pure live seed ("PLS") mixture:

SPECIES	SEEDING RATE (lbs. PLS/acre)	
Blue Grama	4.0	
Bottlebrush Squirreltail	4.0	
Sand Dropseed	4.0	
Indian Ricegrass	4.0	

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Fourwing Saltbush		2.0
Scarlet Globernallow		2.0
	TOTAL	20.0 lbs. PLS/acre

- I. Stockpiles of mulch material (grubbed vegetation) shall be applied to the surface to mitigate erosion. A combination of certified weed-free straw/mulch and grubbed vegetation chipped or ground as mulch from the site shall be applied to the reclaimed areas and shall total a minimum of 2 tons per acre. The mulch shall be crimped in place or otherwise incorporated into the soil.
- J. Following the re-vegetation and restoration activities, periodic site monitoring shall be conducted by the Permittee to ensure the successful establishment of vegetation and stabilization of the site. Re-vegetated areas that do not exhibit satisfactory vegetative growth by the end of the third growing season shall be mitigated by reseeding, mulching, grading, and/or application of best management practices ("BMPs") to prevent erosion and site degradation.
- K. A vegetation reference area (or areas) shall be identified and proposed by the Permittee to MMD as a modification to the Permit within 180 days of the approval date of this Permit. The reference area(s) selected should represent various vegetation types across the Permit Area. The size of the reference area(s) should be at least 5-10% of the disturbed acreage.
- L. The site will be considered reclaimed and eligible for release of financial assurance once the following criteria have been met:
 - 1. canopy cover within the reclaimed area equals at least 75% of canopy cover within the identified reference area(s);
 - 2. species diversity within the reclaimed area approximates the species diversity within identified reference area(s) or within the ecological site description provided by the Natural Resources Conservation Service;
 - 3. noxious weed species percent cover does not exceed that of the reference area(s);
 - 4. no significant erosion is evident on reclaimed areas.
- M. In accordance with the PAP, fencing around the mining and reclamation areas shall be constructed to protect reclaimed areas from grazing until plants are well-established or until re-vegetated areas can tolerate managed grazing pressure.

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- N. The Permittee shall leave all disturbances in a manner that is stable, both long term and short term, and non-hazardous to humans and wildlife. The reclamation plan for the site is described in the PAP and this Permit.
- O. All lands to be disturbed by the mining operation will be addressed under the performance reclamation standards and requirements of §19.10.3.304 NMAC and in accordance with the reclamation plan provided in the PAP and this Permit.
- P. The Permittee shall notify MMD at least thirty (30) days prior to initiating any reclamation pursuant to this Permit.

Noxious Weed Management

- Q. Noxious weeds and/or competitive vegetation shall be controlled by the Permittee. Noxious weed management shall consist, at a minimum, of the following:
 - 1. training of on-site personnel to recognize Halogeton, a Class B noxious weed known to occur on disturbed areas within McKinley County;
 - 2. completion of two inspections per year (early growing season [May-June] and after the monsoon season [September]), of all disturbed areas such as roads, reclaimed areas, pits, and stockpiles within the Permit Area;
 - 3. annual spot-treatment of visually identifiable Halogeton plants, or other identified noxious weeds, using an appropriate herbicide, applied in strict accordance with the manufacturer's recommendations, and/or mechanical removal methods within disturbed areas, affected areas, and reclaimed areas within the Permit Area;
 - 4. decontamination (i.e., pressure or steam washing) of mining equipment prior to introducing any equipment into the Permit Area in order to help prevent the introduction of non-native species to the Permit Area.

Best Management Practices ("BMPs")

- R. A minimum setback of 100 feet from any defined watercourse within the Permit Area is recommended. No excavation or filling shall take place within any watercourse until the required permits or consultations are obtained from the U.S. Army Corps. of Engineers.
- S. No storage of fuels or chemicals shall take place within any watercourse.

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- T. The Permittee shall implement best management practices ("BMPs") in a manner that prevents direct impacts to surface water and ephemeral, intermittent, and perennial water courses. The Permittee shall implement erosion control measures that are designed, constructed and maintained using professionally recognized standards.
- U. The Permittee must contain any water produced from the operation at the site. Discharge of water or any industrial fluids to any watercourse may be a violation of the Clean Water Act. All waste material shall be collected and disposed of properly.
- V. Travel should be suspended during wet, muddy conditions. Construction or maintenance activities should not be performed during periods when the soil is too wet to adequately support heavy equipment. If such equipment creates ruts in excess of six inches deep, the soil is considered too wet to adequately support equipment.
- W. Appropriate spill clean-up materials, such as absorbent pads, must be available on-site at all times during mining activities to address potential spills. Spills must be reported immediately to NMED as required by the New Mexico Water Quality Control Commission Regulations (§20.6.2.1203 NMAC). For non-emergencies during normal business hours, call (505) 476-6000. For non-emergencies after hours, call (866) 428-6535 or (505) 428-6535 (voice mail, twenty-four hours a day). For emergencies only, call (505) 827-9329 twenty-four hours a day (NM Department of Public Safety).

Cultural and Paleontological Resource Preservation Requirements

- X. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the Permittee, or any person working on the Permittee's behalf, shall be immediately reported to the Department of Cultural Affairs and the Mining and Minerals Division. The Permittee shall suspend all operations in the immediate area of such discovery until authorization to proceed is issued by the Department of Cultural Affairs. An evaluation of the discovery will be made by the Department of Cultural Affairs to determine appropriate actions to prevent the loss of significant cultural or scientific values. The Permittee shall be responsible for the cost of evaluation, and any decision as to the proper mitigation measures will be made by the Department of Cultural Affairs after consulting with the Permittee.
- Y. The Permittee is obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the Permittee

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shall immediately halt the disturbance and contact the Department of Cultural Affairs within **24** hours for instructions. The Permittee shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the Department of Cultural Affairs in consultation with Indian Tribes.

Changes, Modifications, or Revisions to the Permit

Z. Any changes, modifications or amendments to the approved Permit must be approved, in writing, prior to implementation.

Financial Assurance

AA. The Permittee shall maintain financial assurance, after approval of this Permit, in the approved amount of \$45,600.00 (forty five thousand six hundred and 00/100 U.S. dollars), using one, or more, approved financial assurance instruments until released, pursuant to Part 12 of the Rules and sufficient to cover third-party costs of surface reclamation of all disturbed areas and exploration reclamation/borehole abandonment.

Annual Report and Fees

BB. The Permittee shall submit annual reports pursuant to §19.10.6.610 NMAC, and any fees as required by §19.10.2 NMAC. The Permittee shall identify any areas of new disturbance due to exploration activities in each annual report submitted to MMD.

Additional Obligations

- CC. The Permittee will maintain this Permit until reclamation is completed at the site. The term of this Permit is governed by §19.10.6.607 NMAC.
- DD. The Permittee shall monitor the site, at least once per year, for the duration of the Permit in order to assure knowledge of the general site conditions and compliance with the Permit and the approved Permit Area.

Section 11. CONCLUSIONS OF LAW

A. The Director concludes the application meets the requirements of a "Minimal Impact Mining Operation," addressed in §19.10.1.107.M(2) NMAC. The operation authorized by this Permit is eligible as a minimal impact operation, and the Permittee is authorized to operate a minimal impact mining operation, pursuant to §19.10.1.107.M(2) NMAC and §19.10.3.304 NMAC. The Brie I Mine will no longer qualify as a Minimal Impact

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operation if permit authority is exceeded or if any of the characteristics described in §19.10.1.7.M(2) NMAC exist.

- B. The PAP is complete and accurate and complies with the requirements of the Act and §19.10.3.304 NMAC.
- C. The Director has jurisdiction over the Permittee and the subject matter of this Permit and process.
- D. The Permittee is permitted to conduct mining, exploration and reclamation operations on the Permit Area and within the 10 acre design limit upon the condition that the Permittee complies with the requirements and conditions of the Act, the Rules, and this Permit, and upon the submission of such annual reports and fees as may be required under §19.10.6.610 NMAC and §19.10.2 NMAC.

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CERTIFICATION

I certify that I have read, understand and will comply with the requirements of the Permit. I further certify that I am not in violation of the Act or 19.10 NMAC. I also agree to comply with the performance and reclamation standards and requirements of the Permit, the Rules, and the Act, and allow the Director to enter the Permit Area without delay for the purpose of conducting inspections during exploration and reclamation.

Authorized Representative of the Permittee

Title

Herden / Company

Subscribed and sworn to before me this 2^{12} day of \overline{D} gust Notary Public

My Commission Expires

11/20/,20/3



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<u>ORDER</u>

NOW THEREFORE, IT IS HEREBY ORDERED that Permit No. MK039MN, for the construction, operation and exploration of the mine referred to as the Brie I Mine, located in Section 11, Township 19 North, Range 6 West, McKinley County, New Mexico, is approved. The Permit may not be transferred without approval by the Director.

By Order of the Director, Mining and Minerals Division of the New Mexico Energy, Minerals and Natural Resources Department, of the State of New Mexico.

By:

Fernando Martinez, Director Mining and Minerals Division Energy, Minerals and Natural Resources Department

8/26/2013 Date:

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Appendix A: Release of Rights Under Access Agreement

RELEASE OF RIGHTS UNDER ACCESS AGREEMENT

The State of New Mexico, acting through the Mining and Minerals Division of the Energy, Minerals, and Natural Resources Department ("Department"), whose address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, third party beneficiary under that certain Access Agreement dated August 15, 2013, between Gallo Finance Company, a Delaware corporation, whose address is 701 Market Street, St. Louis, Missouri 63101-1326, Peabody Natural Resources, a Delaware corporation, whose address is 701 Market Street, St. Louis, Missouri 63101-1326, and Miocene, L.L.C., a New Mexico limited liability company, whose address is 100 Fillmore Street, Suite 500, Denver, Colorado 80206, which Access Agreement was recorded in Book ______, Page ______ in the real property records of _______ County, New Mexico, does hereby release all rights that the Department has or may have under said Access Agreement, including, but not limited to, the right to enter the real property that is described in Attachment 1 to this Release.

Date: _____

STATE OF NEW MEXICO MINING AND MINERALS DIVISION OF THE ENERGY, MINERALS AND NATURAL RESOURCE DEPARTMENT

By: ______, its _____

ACKNOWLEDGMENT

STATE OF NEW MEXICO)) ss.

COUNTY OF SANTA FE)

The foregoing instrument was acknowledged before me this ____ day of _____, 20__ by _____, _______, of the Energy, Minerals and Natural Resources Department of the State of New Mexico.

My Commission Expires _____

Notary Public

(seal)

ATTACHMENT 1 TO RELEASE OF RIGHTS UNDER ACCESS AGREEMENT (Legal Description)

Certain real property, a portion of which is legally described as Section 11, T19N, R6W and Section 29, T20N, R6W, in McKinley County, New Mexico and which is described more particularly in the Memorandum of Surface Humate Mining Lease, dated April 29, 2013 and recorded with the McKinley County Clerk on May 13, 2013 as document # 363219 in Book 2791, Page 009.