

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Fernando Martinez, Director
Mining and Minerals Division



CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 11, 2018

Kennecott Exploration Company, Attn: Erik Best, Land Manager
4700 Daybreak Parkway
South Jordan, UT 84009

**RE: Agency Review Comments and Request for Additional Information,
Lordsburg West Exploration Project,
Permit No. HI019EM – Hidalgo County, New Mexico**

Mr. Best:

The New Mexico Mining and Minerals Division (“MMD”) has reviewed the Permit Application Package (“PAP”), for a minimal impact exploration permit, submitted by Kennecott Exploration Company (“Kennecott”), under Subpart 3 of the New Mexico Mining Act Rules (“Rules”). MMD has also received agency comments on the March 9, 2018 submittal from Kennecott.

Enclosed with this letter are the reviewing agency comment letters submitted by the following state agencies: the New Mexico Environment Department (“NMED”), the NM Office of the State Engineer (“OSE”), the New Mexico Department of Game and Fish (“NMDG&F”), The New Mexico State Forestry Division (“NMSFD”) and the New Mexico Department of Cultural Affairs - Historic Preservation Division (“NMDCA/HPD”). Because this exploration project is proposed to take place on Federal Bureau of Land Management (“BLM”) lands and New Mexico State Trust (“SLO”) Lands, Kennecott will be required to follow those agencies requirements in conjunction with MMD’s Minimal Impact Exploration Permit (“Permit”).

In addition to State and Federal agencies, The Hopi Tribe and the White Mountain Apache Tribe have commented on the Permit No. HI019EM PAP. Please take the tribal comments into consideration during this process. Additionally, please find general comments from MMD based on review of this application. Attached to this letter are all comments from State, Federal, and Tribal agencies.

RE: Agency Review Comments and Request for Additional Information,
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Permit No. HI019EM – Hidalgo County, New Mexico

May 11, 2018

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General Comments:

MMD has reviewed the PAP and deemed it administratively complete, pursuant to §19.10.3.302 G NMAC, in a letter to Kennecott dated April 2, 2018. **However, MMD has reviewed the PAP and has found it to be *technically incomplete* pending receipt of acceptable supplemental information identified in this letter. Please respond no later than 30 days of receipt of this letter, to the information requested.**

MMD Comments:

Please provide the following:

- A. Approved reclamation seed mix from BLM. How will the seed mix be applied? Will any amendment be applied?
- B. Written permission from Kinder Morgan authorizing vehicle and equipment access of the pipeline Right of Way.
- C. Copies of all OSE well drilling and plugging permits.
- D. Approved joint MMD/BLM Financial Assurance in the amount of \$304, 020.00.
- E. Proof of Exploration Agreement with Option for the patented mining claims held by Comstock Allied LLC.
- F. Please provide narrative in the application to address how overland travel routes that are significantly disturbed will be seeded and scarified.

BLM Comments

- A. The BLM has provided no specific comments to MMD regarding this PAP, however Kennecott will be required to comply with and follow the BLM's Notice process in conjunction with the MMD permitting process.

SLO Comments

- A. The SLO has no comments for MMD regarding this PAP, however Kennecott will be required to comply with and follow the SLO's Mineral Lease process in conjunction with the MMD permitting process.

RE: Agency Review Comments and Request for Additional Information,
Lordsburg West Exploration Project,
Permit No. HI019EM – Hidalgo County, New Mexico

May 11, 2018

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**NMED Mining Environmental Compliance Section, Ground Water Quality Bureau
Comments (“MECS”)**

Below are specific comments from NMED/MECS. Please address their comments and concerns.

- A. The Applicant did not provide the ground water total dissolved solids concentration information in the application as required by 19.10.3.302.D.(5) NMAC. NMED cannot evaluate potential water quality impacts to ground water without the information required by regulation. During an inspection performed on April 24, 2018 with the Applicant, personnel from the Mining Environmental Compliance Section (MECS) requested the Applicant provide the required total dissolved solids concentration levels expected in the vicinity of the proposed project.
- B. MECS personnel did review the Office of the State Engineer (OSE) Points of Diversion (POD) database to evaluate the presence of ground water production wells in the area of the proposed project. Six ground water production wells were listed in the OSE POD database in the general area of the project. The average depth to ground water in the six wells is reported to be 170 feet below ground surface. Based on the large area of the proposed project (11 sections), ground water quality and depth may be highly variable. In the likely instance ground water is encountered while advancing the borings to the total depth of 1,640 feet below ground surface, all plugging, and abandonment of the borings should comply with OSE regulations for wet holes. The applicant must contain any water produced from the exploration holes at the drill site.

NMED Surface Water Quality Bureau Comments:

- A. NMED Surface Water Quality Bureau finds Kennecott Exploration Company’s proposed exploration is likely to have a minimal impact to surface waters if operated and reclaimed with the approved permits and pollution control. Please read the attached NMED Surface Water Quality Bureau Letter for comments, concerns and more details on applicable permits and pollution control.

NMED Air Quality Bureau Comments:

- A. NMED Air Quality Bureau has no objection to this PAP. Please read the attached NMED Air Quality Bureau comments to familiarize yourself with the air quality requirements and concerns in New Mexico.

NMDCA/HPD Comments:

- A. Please see attached letter from NMDCA/HPD regarding Cultural Resource comments on the PAP. Additionally, NMDCA/HPD will have 30 days to comment on the Cultural Resource Survey prepared by SWCA Environmental Consultants on behalf of Kennecott Exploration Company once they have received the report.

Eric Best, Land Manager – Kennecott Exploration Company

RE: Agency Review Comments and Request for Additional Information,
Lordsburg West Exploration Project,
Permit No. HI019EM – Hidalgo County, New Mexico

May 11, 2018

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NMOSE Comments:

- A. Please see attached letter from NMOSE and address their comments and concerns regarding well drilling and plugging.

NMDG&F Comments:

- A. Please see attached letter from NMDG&F and address their comments and concerns regarding wildlife protection from drilling pits and avoidance of migratory bird nests during the exploration process.

NMSFD Comments:

- A. Please see attached letter from NMSFD and address their comments and concerns regarding the state listed endangered plant species; the Night Blooming Cereus and the Chihuahua Scurf Pea.

Should you have any questions, comments, or require additional information concerning this letter or any enclosures, please contact me at (505) 476-3413, or via email at:

clinton.chisler@state.nm.us.

Sincerely,



Clint Chisler – Permit Lead, HI019EM
Mining Act Reclamation Program (“MARF”)
New Mexico Mining and Minerals Division

Enclosures:

May 4, 2018, Letter to MMD from NMDGF
April 26, May 3/4, 2018, Letters to MMD from NMED
April 25, 2018 Letter to MMD from NMDCA/HPD
May 3, 2018 Letter to MMD from NMOSE
April 23, 2018, E-mailed Correspondence to MMD from NMSFD
April 19, 2018, E-mailed Correspondence to MMD from SLO
May 4, 2018 BLM Determination on Case File NMNM 138099
April 30, 2018 Letter to MMD from The Hopi Tribe
April 17, 2018 Letter to MMD from the White Mountain Apache Tribe

Cc w/o enclosures:

Holland Shepherd, Program Manager, MARP/MMD
Mine File (HI019EM)



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Las Cruces District Office
1800 Marquess Street
Las Cruces, New Mexico 88005
www.blm.gov/new-mexico



IN REPLY REFER TO:

3809 (L0310)
NMNM 138099

MAY 04 2018

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
7006 0100 0004 5388 8622

DECISION

Erik Best – Land Manager	:	
Kennecott Exploration Company	:	Surface Management
4700 Daybreak Parkway	:	
South Jordan, UT 84009	:	

DETERMINATION OF REQUIRED FINANCIAL GUARANTEE AMOUNT

The Kennecott Exploration Company, Notice to conduct exploration trenching and drilling near Gage, NM was received by this office on March 2, 2018. The Notice has been assigned Bureau of Land Management (BLM) case file number NMNM 138099. Please refer to this number in any future communication concerning this project.

The BLM has reviewed the Notice and has determined it to be complete, containing all the information required by the surface management regulations at 43 CFR 3809.301. The BLM has reviewed the proposed operation and determined it is adequate to prevent unnecessary or undue degradation as defined by 43 CFR 3809.5.

Amount of Financial Guarantee - This office has determined that the amount of \$304,020 is sufficient to meet all anticipated reclamation requirements. The amount of the reclamation cost estimate is based on the operator complying with all applicable operating and reclamation requirements as outlined in the Notice and the regulations at 43 CFR 3809.420.

Line items in the approved reclamation cost estimate are not to be considered as the limits of the reclamation expenditures should forfeiture of the financial guarantee be necessary. The line items listed are solely for the purpose of arriving at a total amount for the financial guarantee. This amount may be spent as the BLM deems necessary to implement the approved reclamation plan. The financial guarantee amount does not represent reclamation liability limits or constraints should the actual cost of reclamation exceed this amount.

Required Financial Guarantee -The financial guarantee in the amount of \$304,020 must be submitted to and accepted by the BLM New Mexico State Office 301 Dinosaur Trail, Santa Fe, NM 87508. You must

receive written notification from that office accepting and obligating your financial guarantee before you begin any surface-disturbing operations.

The types of instruments that are acceptable to the BLM for financial guarantees are found at 43 CFR 3809.555. Please contact Ida Viarreal, (505) 954-2163 for forms and further information regarding acceptable financial guarantees.

The BLM's review of your proposed operations, determination that your Notice is complete, finding that the activity will not cause unnecessary or undue degradation, and decision concerning the amount of the required financial guarantee does not relieve you, the operator, of the responsibility to comply with all applicable Federal, state, and local laws, regulations, and permit requirements. You are responsible for preventing any unnecessary or undue degradation and for reclaiming all lands disturbed by your operations. This decision does not constitute certification of ownership to any entity named in the Notice, recognition of the validity of any associated mining claims, or recognition of the economic feasibility of the proposed operations.

Term of Notice - Your Notice will remain in effect for 2 years from the date of this decision, unless you notify this office beforehand that operations have ceased and reclamation is complete. If you wish to conduct operations for another 2 years after the expiration date of your Notice, you must notify this office in writing on or before the expiration date as required by 43 CFR 3809.333. You will also have to submit an updated reclamation cost estimate at that time.

Cultural Resources: The project is located near the Butterfield Trail. It is recommended that the Butterfield Trail be avoided as depicted on a USGS topographic map.

Sensitive Species: The project area is located in known habitat for BLM sensitive specie Night-Blooming Cereus. A quick ID sheet is enclosed.

Noxious Weeds: all equipment utilized on the project shall be cleaned off site on private land with a high pressure power washer to remove any oil, grease, dirt, and debris that may contain noxious and invasive weed seed.

Appeal of the Decision - If you are adversely affected by this decision, you may request that the BLM New Mexico State Director review this decision. If you request a State Director Review, the request must be received in the BLM New Mexico State Office at 301 Dinosaur Trail, Santa Fe, NM 87508 no later than 30 calendar days after you receive or have been notified of this decision. The request for State Director Review must be filed in accordance with the provisions in 43 CFR 3809.805. This decision will remain in effect while the State Director Review is pending, unless a stay is granted by the State Director.

If the State Director does not make a decision on your request for review of this decision within 21 days of receipt of the request, you should consider the request declined and you may appeal this decision to the Interior Board of Land Appeals (IBLA). You may contact the BLM New Mexico State Office to determine when the BLM received the request for State Director Review. You have 30 days from the end of the 21-day period in which to file your Notice of Appeal with this office at 1800 Marquess St., Las Cruces, NM 88005, which we will forward to IBLA.

If you wish to bypass a State Director Review, this decision may be appealed directly to the IBLA in accordance with the regulations at 43 CFR 3809.801(a)(1). Your Notice of Appeal must be filed in this office at 1800 Marquess St., Las Cruces, NM 88005 within 30 days from receipt of this decision. As the

appellant you have the burden of showing that the decision appealed from is in error. Enclosed is BLM Form 1842-1 that contains information on taking appeals to the IBLA. This decision will remain in effect while the IBLA reviews the case, unless a stay is granted by the IBLA.

Request for a Stay - If you wish to file a petition pursuant to regulations 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by Interior Board of Land Appeals (IBLA), the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of this notice of appeal and petition for a stay must also be submitted to each party named in the decision and to the IBLA and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay - Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

- 1) The relative harm to the parties if the stay is granted or denied,
- 2) The likelihood of the appellant's success on the merits,
- 3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- 4) Whether the public interest favors granting the stay.

If you have any questions, please contact Leighandra Keeven, Geologist, at (575) 525-4337.



David Wallace
Assistant District Manager
Multi-Resources
Las Cruces District Office

2 Enclosures

- 1 - Form 1842-1, Information on Taking Appeals to the Interior Board of Land Appeals
- 2 - Night-Blooming Cereus Quick ID Sheet

cc:

Clinton Chisler
New Mexico Energy, Minerals
and Natural Resources Department
Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Ida Villareal
BLM New Mexico State Office
301 Dinosaur Trail
Santa Fe, NM 87508

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION ON TAKING APPEALS TO THE INTERIOR BOARD OF LAND APPEALS

DO NOT APPEAL UNLESS

1. This decision is adverse to you,
AND
2. You believe it is incorrect

IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED

1. NOTICE OF
APPEAL.....

A person who wishes to appeal to the Interior Board of Land Appeals must file in the office of the officer who made the decision (not the Interior Board of Land Appeals) a notice that he wishes to appeal. A person served with the decision being appealed must transmit the *Notice of Appeal* in time for it to be filed in the office where it is required to be filed within 30 days after the date of service. If a decision is published in the FEDI-RA1 REGISTER, a person not served with the decision must transmit a *Notice of Appeal* in time for it to be filed within 30 days after the date of publication (43 CFR 4.411 and 4.413).

2. WHERE TO FILE

Bureau of Land Management, 1800 Marquess Street, Las Cruces, NM 88005

NOTICE OF APPEAL

WITH COPY TO
SOLICITOR...

Office of the Regional Solicitor, Southwest Regional Office, 505 Marquette Ave. NW, Suite 1800
Albuquerque, NM 87102

3. STATEMENT OF REASONS

Within 30 days after filing the *Notice of Appeal*, file a complete statement of the reasons why you are appealing. This must be filed with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. If you fully stated your reasons for appealing when filing the *Notice of Appeal*, no additional statement is necessary (43 CFR 4.412 and 4.413).

WITH COPY TO
SOLICITOR.....

4. ADVERSE PARTIES.....

Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor or Field Solicitor having jurisdiction over the State in which the appeal arose must be served with a copy of: (a) the *Notice of Appeal*, (b) the Statement of Reasons, and (c) any other documents filed (43 CFR 4.413).

5. PROOF OF SERVICE.....

Within 15 days after any document is served on an adverse party, file proof of that service with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (43 CFR 4.401(c)).

6. REQUEST FOR STAY.....

Except where program-specific regulations place this decision in full force and effect or provide for an automatic stay, the decision becomes effective upon the expiration of the time allowed for filing an appeal unless a petition for a stay is timely filed together with a *Notice of Appeal* (43 CFR 4.21). If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Interior Board of Land Appeals, the petition for a stay must accompany your *Notice of Appeal* (43 CFR 4.21 or 43 CFR 2801.10 or 43 CFR 2881.10). A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the *Notice of Appeal* and Petition for a Stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay. Except as otherwise provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) the relative harm to the parties if the stay is granted or denied, (2) the likelihood of the appellant's success on the merits, (3) the likelihood of immediate and irreparable harm if the stay is not granted, and (4) whether the public interest favors granting the stay.

Unless these procedures are followed, your appeal will be subject to dismissal (43 CFR 4.402). Be certain that all communications are identified by serial number of the case being appealed.

NOTE: A document is not filed until it is actually received in the proper office (43 CFR 4.401(a)). See 43 CFR Part 4, Subpart B for general rules relating to procedures and practice involving appeals.

QUICK ID SHEET
Night-Blooming Cereus – *Peniocereus greggii* var. *greggii*



Characteristics: Roots a very large tuber; stems 3 to 6 ribbed (angled), narrow, dull green to dull purple (winter), 6" to 3' tall, up to 2.5 cm / 1" diameter; spine clusters oval, spaced along ribs, spines short, 2-3mm / 1/16" to 1/8" long; flowers white (May), 2-3" diameter, fragrant, nocturnal, opening early evening and closing mid-morning; fruits red, 2-3" long narrowing to a point at top, dotted with small spine clusters (late summer to fall).

Distribution: Plants are known to occur from the east side of the Organ/San Andres/Franklin Mtns south into Texas and Mexico and west to the Bootheel Region and the eastern edge of Arizona.

Habitat: Plants occur primarily in gravelly soils near the bases of hills and on rocky bajadas (rarely in sandy or loamy soils or in cracks in bedrock). Usually found growing within a shrub canopy (creosotebush, mesquite), sometimes in the open. Plants are usually infrequently dotted across the landscape, but occasionally occur in populations of 50-150 individuals.

General Info: Night-blooming cereus is a state endangered and BLM sensitive species. Please notify your local botanist or endangered species specialist of discoveries of this plant – take field notes and accurate GPS positions.

BLM-NM – February 28, 2018



GOVERNOR
Susana Martinez



DIRECTOR AND SECRETARY
TO THE COMMISSION
Alexandra Sandoval

DEPUTY DIRECTOR
Donald L. Jaramillo

STATE OF NEW MEXICO DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507
Post Office Box 25112, Santa Fe, NM 87504
Tel: (505) 476-8000 | Fax: (505) 476-8123
For information call: (888) 248-6866

www.wildlife.state.nm.us

STATE GAME COMMISSION

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Roswell
THOMAS "DICK" SALOPEK
Las Cruces

4 May 2018

Clint Chisler, Permit Lead
Permit Lead, Mining Act Reclamation Program
Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: New Minimal Impact Exploration Permit Application, Lordsburg West Exploration Project, HI019EM; NMDGF No. 18396

Dear Mr. Chisler,

The New Mexico Department of Game and Fish (Department) has reviewed the project referenced above. Kennecott Exploration Company is proposing to drill 12 exploratory holes, each to a depth of approximately 1,640 feet. The drilling sites will be located in Township 22S, Range 19W, Sections 32 and 33; and in Township 23S, Range 19W, Sections 4, 5, 7, 8, 13, 16, 17, 29, and 33.

In order to eliminate potential impacts to wildlife from exposure to mud pits, the Department recommends the use of closed loop drilling systems. Closed loop systems eliminate the need to build fences or install netting to exclude wildlife, reduce the amount of surface disturbance associated with the well pad site, and can significantly reduce water consumption. If a closed loop system is not used, drilling pits should be covered or netted to exclude flying and terrestrial animals. Extruded, knit, or woven netting material is preferred. Monofilament netting should not be used due to its tendency to ensnare wildlife and cause injury or death. All materials should be UV and corrosion resistant. The Department recommends a mesh size of $\frac{3}{8}$ inch to exclude smaller animals. Netting material must be held taught over a rigid and adequately supportive frame in order to prevent sagging.

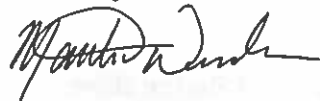
Migratory birds are protected against direct take under the federal Migratory Bird Treaty Act (16 U.S.C. Sections 703-712) and New Mexico State Statutes (17-2-13 and 17-2-14 NMSA). To prevent impacts to migratory bird nests, eggs or nestlings, the Department recommends that ground disturbance and vegetation removal activities be conducted outside of the breeding season for songbirds and raptors (1 Mar – 1 Sep). If ground disturbing and clearing activities during the breeding season cannot be avoided, the area should be surveyed for active nest sites prior to disturbance. For any active nests, an adequate buffer zone should be established to minimize disturbance to nesting birds. Buffer distances should be ≥ 100 feet from songbird and raven nests, and 0.25 mile from raptor nests. Active nest sites in trees or shrubs that must be removed should be mitigated by qualified biologists or wildlife rehabilitators. Department

biologists are available for consultation regarding nest site mitigation, and can facilitate contact with qualified personnel.

The permit application does not specify a reclamation seed mix, but states that the seeds to be used for reclamation will be a mix specified by the Bureau of Land Management. The Department recommends utilizing a seed mix and mulch that is comprised of native species and is certified weed-free. The Department also recommends requesting seed test results from the vendor to avoid inadvertently introducing exotic species to the reclamation site. Any alternate seeds used to substitute for primary plant species that are unavailable at the time of reclamation should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the proposed disturbance area.

Thank you for the opportunity to review and comment on the proposed project. If you have any questions, please contact Ron Kellermueller, Mining and Energy Habitat Specialist, at (505) 476-8159 or ronald.kellermueller@state.nm.us.

Sincerely,



Matt Wunder, Ph.D.
Chief, Ecological and Environmental Planning Division

cc: USFWS NMES Field Office



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, New Mexico 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965

www.env.nm.gov



BUTCH TONGATE
Cabinet Secretary

J.C. BORREGO
Deputy Secretary

MEMORANDUM

Date: May 4, 2018

To: Holland Shepherd, Program Manager, Mining Act Reclamation Program

Through: Jeff Lewellin, Mining Act Team Leader, Mining Environmental Compliance Section

From: George Llewellyn, Mining Environmental Compliance Section
John Moeny, Surface Water Quality Bureau
Neal Butt, Air Quality Bureau

Subject: **NMED Comments, Kennecott Exploration Company, Lordsburg West
Minimal Impact Exploration Project, Hidalgo County, New Mexico,
MMD Permit No. HI019EM**

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on April 16, 2018 requesting NMED review and provide comments on the above-referenced MMD permitting action. In accordance with 19.10.3.302.G NMAC, NMED is providing comments within the 20 day period prescribed by the regulation. NMED has the following comments.

Background

Kennecott Exploration Company (Applicant) proposes a minimal impact exploration project to advance 12, 4.5-inch diameter borings to a depth of 1640 feet below ground surface. Nine borings will be located on land managed by the Bureau of Land Management, two borings on New Mexico State Lands and one boring will be advanced on private property. The borings will be located in Sections 4, 5, 7, 8, 13, 32 and 33 T22N, R19W, and Sections 16, 17, 29 and 33 T23S, R19W which is indicated in the application as approximately six miles southwest of Lordsburg, New Mexico. The purpose of the proposed exploration project is to evaluate potential reserves of copper and associated base and precious metals.

Air Quality Bureau

The Air Quality Bureau comments are attached under separate letterhead.

Surface Water Quality Bureau

The Surface Water Quality Bureau comments are attached under separate letterhead.

Mining Environmental Compliance Section

The Applicant did not provide the ground water total dissolved solids concentration information in the application as required by 19.10.3.302.D.(5) NMAC. NMED cannot evaluate potential water quality impacts to ground water without the information required by regulation. During an inspection performed on April 24, 2018 with the Applicant, personnel from the Mining Environmental Compliance Section (MECS) requested the Applicant provide the required total dissolved solids concentration levels expected in the vicinity of the proposed project. MECS personnel did review the Office of the State Engineer (OSE) Points of Diversion (POD) database to evaluate the presence of ground water production wells in the area of the proposed project. Six ground water production wells were listed in the OSE POD database in the general area of the project. The average depth to ground water in the six wells is reported to be 170 feet below ground surface. Based on the large area of the proposed project (11 sections), ground water quality and depth may be highly variable. In the likely instance ground water is encountered while advancing the borings to the total depth of 1,640 feet below ground surface, all plugging and abandonment of the borings should comply with OSE regulations for wet holes. The applicant must contain any water produced from the exploration holes at the drill site.

NMED Summary Comment

NMED finds that the minimal impact exploration project is likely to have a minimal impact to the environment if operated and reclaimed with the approved permits, pollution controls and the comments above.

If you have any questions, please contact Jeff Lewellin at (505) 827-1049.

cc: Bruce Yurdin, Division Director, NMED-WPD
Shelly Lemon, Bureau Chief, SWQB
Liz Bisbey-Kuehn, Bureau Chief, AQB
Fernando Martinez, Division Director, EMNRD-MMD
Clint Chisler, Lead Staff, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

525 Camino de los Marquez
Suite 1
Santa Fe, New Mexico, 87505
Phone (505) 476-4300 Fax (505) 476-4375
www.env.nm.gov



BUTCH TONGATE
Cabinet Secretary
JUAN CARLOS BORREGO
Deputy Cabinet Secretary

MEMORANDUM

DATE: April 26, 2018

TO: Jeff Lewellin, Mining Act Team Leader
Mining Environmental Compliance Section, Ground Water Quality Bureau

FROM: Neal Butt, Environmental Analyst
Control Strategies Section, Air Quality Bureau

RE: Request for Review and Comment, Minimal Impact Exploration Permit
Application, Lordsburg West Exploration Project, Hidalgo Co., NM
Permit Tracking No. HI019EM

The New Mexico Air Quality Bureau (AQB) has completed its review of the above-mentioned mining project. Pursuant to the New Mexico Mining Act Rules, the AQB provides the following comments.

Air Quality Permitting History

The AQB has not issued any air quality permits for this operation.

Details

The applicant, Kennecott Exploration Company ("Kennecott"), proposes to explore for copper, and associated base and precious metals; disturbing less than 5 acres at a time (rolling average); drilling 12 holes to a depth of 1,640 ft. on Bureau of Land Management land (9 holes), New Mexico State Lands (2 holes), and Private Property (1 hole) within the boundaries of claim numbers identified in the application for exploration located approx. 6 miles SW of Lordsburg, in Hidalgo County New Mexico.

Air Quality Requirements

The New Mexico Mining Act of 1993 states that "Nothing in the New Mexico Mining Act shall supersede current or future requirements and standards of any other applicable federal or state law." Thus, the applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. Current requirements which may be applicable in this mining project include, but are not limited to the following:

Paragraph (1) of Subsection A of 20.2.72.200 NMAC, *Application for Construction, Modification, NSPS, and NESHAP - Permits and Revisions*, states that air quality permits must be obtained by:

“Any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard. If the specified threshold in this subsection is exceeded for any one regulated air contaminant, all regulated air contaminants with National or New Mexico Ambient Air Quality Standards emitted are subject to permit review.”

Further, Paragraph (3) of this subsection states that air quality permits must be obtained by:

“Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, *New Source Performance Standards*, 20.2.78 NMAC, *Emission Standards for Hazardous Air Pollutants*, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant.”

Also, Paragraph (1) of Subsection A of 20.2.73.200 NMAC, *Notice of Intent*, states that:

“Any owner or operator intending to construct a new stationary source which has a potential emission rate greater than 10 tons per year of any regulated air contaminant or 1 ton per year of lead shall file a notice of intent with the department.”

In addition, pursuant to Subsection A of 19.10.3.302 NMAC, *Minimal Impact Exploration Operations*:

“A minimal impact exploration operation will not exceed 1000 cubic yards of excavation per permit. Disturbances for constructed roads, drill pads and mud pits shall be no more than 5 acres total and will not be counted in the excavated materials. The type of road construction, the number and type of drill pads, and other disturbances when considered with site specific conditions will be major factors in determining eligibility for minimal impact status which is in the discretion of the director.”

The above is not intended to be an exhaustive list of all requirements that could apply. The applicant should be aware that this evaluation does not supersede the requirements of any current federal or state air quality requirement.

Fugitive Dust

Although fugitive dust is a common problem at mining sites, the AQB does not have a rule that regulates fugitive dust at this time. Meanwhile, we recommend controls to minimize emissions of particulate matter from fugitive dust sources to limit public health and traffic safety impacts. The following control strategies can be included in a comprehensive fugitive dust control plan (from EPA’s *Compilation of Air Pollutant Emission Factors*, AP-42):

Unpaved haul roads and traffic areas: paving of permanent and semi-permanent roads, application of surfactant, watering, and traffic controls, such as speed limits and traffic volume restrictions.

Paved roads: covering of loads in trucks to eliminate truck spillage, paving of access areas to sites, vacuum sweeping, water flushing, and broom sweeping and flushing.

Material handling: wind speed reduction and wet suppression, including watering and application of surfactants (wet suppression should not confound track out problems).

Bulldozing: wet suppression of materials to “optimum moisture” for compaction.

Scraping: wet suppression of scraper travel routes.

Storage piles: enclosure or covering of piles, application of surfactants.

Miscellaneous fugitive dust sources: watering, application of surfactants or reduction of surface wind speed with windbreaks or source enclosures.

Recommendation

The AQB has no objection to the current request for a permit.

The applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. This written evaluation does not supersede the applicability of any forthcoming state or federal regulations.

If you have any questions, please contact me at (505) 476-4317.



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lt. Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.env.nm.gov



BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

MEMORANDUM

TO: Jeff Lewellin, Mining Act Team Leader
Mining Environmental Compliance Section
Ground Water Quality Bureau (GWQB)

FROM: John Moeny, Surface Water Quality Bureau

SUBJECT: **Request for Comments, Minimal Impact Exploration Project, Kennecott Exploration Company, Lordsburg West Exploration Project, Hidalgo County, MMD Permit No. HI019EM**

DATE: May 3, 2018

On April 16, 2018, NMED received a request for comments regarding a minimal impact exploration permit, by Kennecott Exploration Company. The project is located in Hidalgo County at various locations west and southwest of Lordsburg, NM, on a mix of state, private and public lands administered by the Bureau of Land Management.

Summary of Proposed Action

The Applicant intends to drill up to twelve, 4.5" exploratory drill holes to a maximum depth of 1,640 feet. Each drill site will have an associated ground disturbance for the sump pit (20'x12'x4' deep) and drill pads (14,400 square feet). Drill cuttings will be collected and buried at each drill location. Access to the drill sites will combine existing roads, Rights-of-Way and overland (roadless) travel where necessary.

Relevant State and Federal Water Quality Regulations

Intermittent water quality standards under 20.6.4.98 NMAC apply to all unclassified waters of the state including ephemeral drainages in the project area, until a hydrology protocol (HP) survey is conducted and a Use Attainability Analysis (UAA) is approved by the Water Quality Control Commission (WQCC) in accordance with 20.6.4.15 NMAC.

Construction activities in support of the drilling, mining or hauling in ephemeral drainages may require a federal Clean Water Act Section 404 Dredge and Fill Permit and the corresponding

Section 401 State of New Mexico Certification of the federal permit. For details contact the US Army Corps of Engineers Las Cruces Regulatory Office at **575.268.8612**.

This Project will disturb one or more acres and storm water discharges may be covered under either the U.S. Environmental Protection Agency (USEPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) or under the Multi-Sector General Permit (MSGP) under Sector G Metal Mining.

Among other things, a SWPPP must be prepared for the site and that appropriate Best Management Practices (BMPs) be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil & grease and construction materials from construction sites) in storm water runoff from entering waters of the U.S. This permit also requires that permanent stabilization measures (revegetation, paving, etc.), and permanent storm water management measures (storm water detention/retention structures, velocity dissipation devices, etc.) be implemented post construction to minimize, in the long term, pollutants in storm water runoff from entering these waters.

Operators of certain small construction activity (disturbance of one to five acres) may be waived from permit requirements under limited circumstances. To be eligible for this waiver, operators must certify to EPA that they are eligible (see Section 9 Appendix C of the CGP). Waivers are only available to stormwater discharges associated with small construction activities (i.e., 1-5 acres). If this Project transitions into mining activities, MSGP coverage would be required at that time.

The CGP was re-issued January 11, 2017 and is effective February 16, 2017. The CGP and the eReporting tool (NeT-CGP) to apply for coverage or waivers is available at: <https://www.epa.gov/npdes/2017-construction-general-permit-cgp>. The MSGP was re-issued effective June 4, 2015, that Permit information is available at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

In addition to the regulations above, the following best management practices are recommended to protect surface water quality.

- Fuel, oil, hydraulic fluid, lubricants, and other petrochemicals must have a secondary containment system to prevent spills.
- Ground water sump pits may not be used as disposal locations for hydraulic fluids, oils, contaminated drilling mud or other materials that may pose a pollution risk to surface and ground water.
- Ground water sump pits must be lined and setback from drainages by a minimum of 100 feet.
- Appropriate spill clean-up materials such as absorbent pads must be available on-site at all times during road construction, site preparations, drilling and reclamation to address potential spills.

- Report all spills immediately to the 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 505-428-2500. 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 Dept of Public Safety).

Impacts to Surface Water Quality

The SWQB finds Kennecott Exploration Company's proposed exploration is likely to have a minimal impact to surface waters if operated and reclaimed with the approved permits and pollution controls and the comments above.

If you have any questions, please phone me at (575) 956-1545.


MEMORANDUM


OFFICE OF THE STATE ENGINEER

Hydrology Bureau

DATE: May 3, 2018

TO: Clint Chisler, Permit Lead, Mining Act Reclamation Program ("MARF")/MMD
Lloyd Valentine, District III Manager, WRD, Deming

THROUGH: Ghassan Musharrafieh, Ph.D., Chief, Hydrology Bureau 

FROM: Steve Acheampong, Ph.D., Hydrologist, Hydrology Bureau 

SUBJECT: Review and Comments, Minimal Impact Exploration Permit Application,
Lordsburg West Exploration Project, Hidalgo County, NM; Permit Tracking No.
HI019EM

I. Introduction

On April 16, 2018, State of New Mexico Energy, Minerals and Natural Resources Department requested the Hydrology Bureau of the Office of the State Engineer (OSE) to review and comment on Part 3 Minimal Impact Exploration Operation Permit submitted by Kennecott Exploration Company, Hidalgo County, New Mexico, Permit Tracking No. HI019EM Mining Project.

Kennecott Exploration Company ("Kennecott"), a subsidiary of Rio Tinto, the applicant, proposes to drill twelve test boreholes on lands owned by the State of New Mexico Land Office (SNMLO) and the Bureau of Land Management (BLM) in Hidalgo County, New Mexico (see attached map). The total acreage to be disturbed by the project is 7.8078 acres. The proposed test holes will be 4.5 inches in diameter and will be drilled to depths of up to 1640 feet below ground level (bgl) with an average depth of 1500 ft bgl in Township 23S Range 19W sections 4, 5, 7, 8, 13, 16, 17, 29 and 33; and Township 22S, Range 19W, sections 32 and 33 about 6 miles SW of Lordsburg in Hidalgo County, New Mexico. The reported estimated depth to groundwater of a nearby well in the area is 200 feet bgl. No information on the water quality in terms of the total dissolved solids (TDS) concentration of the groundwater in the area was given. The test holes will be plugged upon completion and evaluation of the mineral resources by Kennecott. Kennecott will not conduct any exploration in the Lordsburg Playa.

II. Comments

The Hydrology Bureau has completed a review of the project application and provides the following comments:

II. A. Surface Water

The proposed exploration will be conducted in a desert with dry washes with no nearby permanent surface water body. Also there are no springs observed in the project area.

II. B. Groundwater

In section 6C of the application the applicant contends that groundwater is anticipated to be encountered during the exploration but went ahead and selected option 4 under dry hole abandonment. OSE agrees with the applicant's selection if a dry hole is encountered which is highly unlikely due to the depth of the borehole. The applicant intends to use high density bentonite clay (QUIK GROUT) for the abandonment of a dry hole should one be encountered, presumably in compliance with Mining and Minerals Division NMAC 19.10.3.302.L. regulations.

In the event that artesian conditions are encountered during drilling resulting in the free flow of water to the surface, drilling operations should cease immediately and the District 3 Office of the Water Rights Division of the New Mexico Office of the State Engineer in Deming should be contacted.

The applicant states that depth to groundwater is 200 feet below ground level. However, data from the OSE NMWRRS website for three nearby wells show their depths to water range from 60 to 119 feet below ground level (see attached). No information on the quality of the groundwater was available from any of these wells. The water quality in the area may be variable.

There appears to be an inconsistency in the proposed abandonment of drill holes. In letters dated February 18, 2018 and March 2, 2018 from Mr. Erik Best, Land Manager of Kennecott Exploration Company to Mr. Navarro of BLM and Mr. Jack Yates, Mineral Manager of New Mexico State Land Office respectively, Mr. Best states under D. Planned Activities, that Kennecott planned a drill program of 9 and 2 drill holes on BLM and NMSLO lands respectively (application states 12 wells).

- He goes on to state under K, Abandonment, that "All drill holes will be abandoned to meet New Mexico State requirements. Holes will be abandoned immediately after drilling activities and will be cemented from bottom-to-top using "Portland" cement and water in a proportion to yield a slurry weight of approximately fifteen (15) pounds per gallon. This method of plugging will ensure successful long term plugging of each hole."
- However, Kennecott selected option 2 under Section 6 D, Wet Hole abandonment, which states that "High density bentonite clay ($\geq 20\%$ active solids; i.e. QUIK-GROUT

manufactured by Baroid Industrial Products), mixed according to manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.

- Additionally, in Section 3.4 of the Rio Tinto "Procedure: Reclamation and Top Soil Management – NAR" in the materials submitted for review, reference is made to acting "...per the RTX NAR Drilling Management Procedure and RTX NAR Water Management Procedure", regarding borehole decommissioning.

Applicant should confirm their understanding of NMAC 19.10.3.302.L. requirements for exploratory borehole decommissioning and further clarify proposed decommissioning materials and methodology. Note that additional plugging conditions (particularly for wet holes) may be added by the NMOSE upon submittal and review of NMOSE Forms WR-07 and WD-08, referenced in the attachment to this memorandum. Should flowing artesian conditions be encountered in the exploratory drilling, the OSE will require the drill hole be decommissioned using cement grout, witnessed by an authorized representative of the OSE.

The applicant indicated in Section 6 C that Forms WR-07 and WD-08 had been completed and submitted to the NMOSE in accordance with Subsection C of NMAC 19.27.4.30, as revised 6/30/2017, prior to initiating drilling of the proposed test wells but there were no copies attached to the application so the well plugging operations plans as proposed to the OSE are not known.

The lack of water quality information on the groundwater in the area and the fact that the project area is in the proximity of an area with known brackish water (Lordsburg Playa) creates an uncertainty in the type of material to be used for well abandonment.

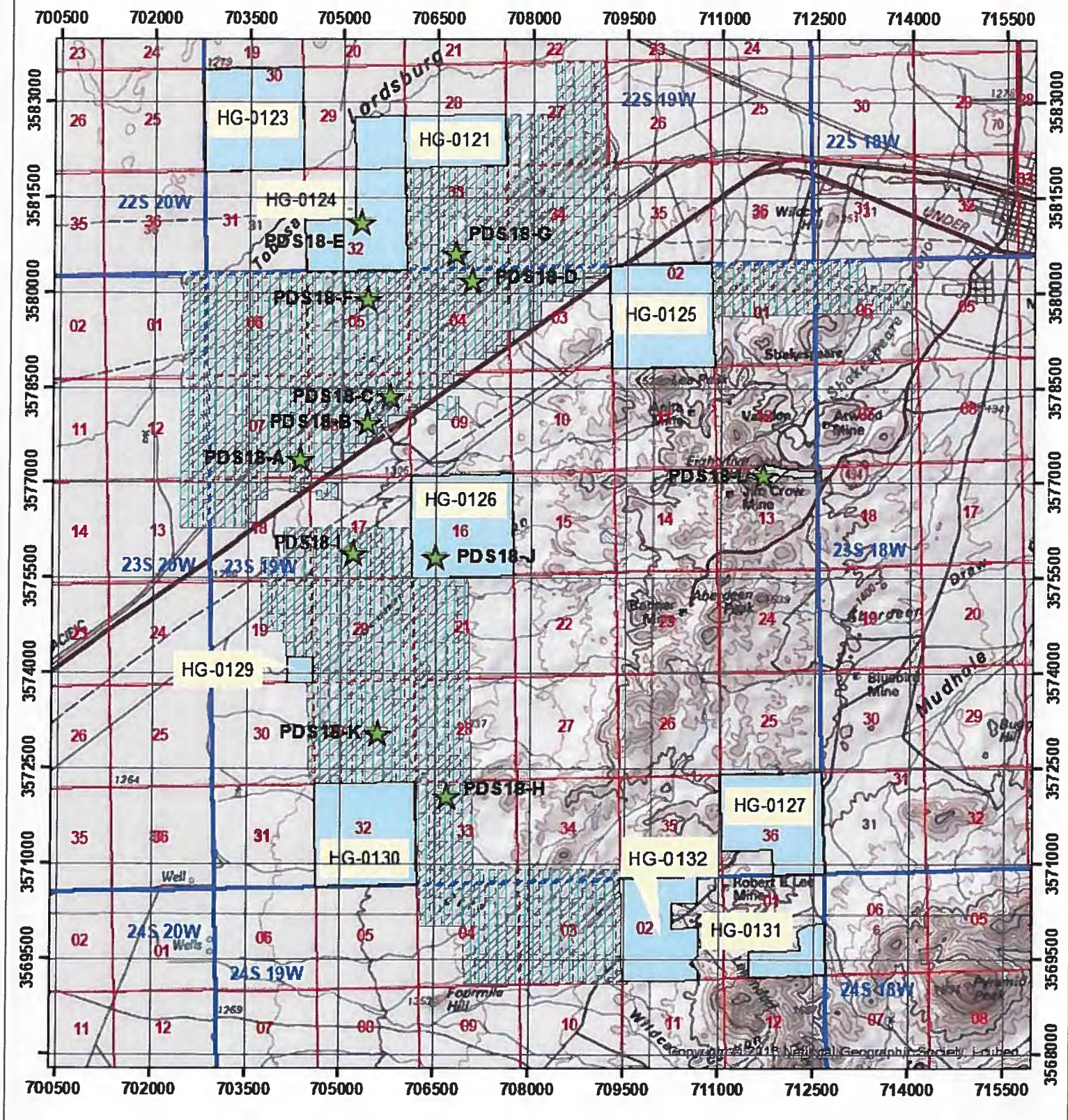
The methodologies selected by the applicant for the abandonment of dry holes and non-flowing wet holes with chloride concentration ≤ 1500 mg/L seem appropriate. It is recommended that the chloride concentration of the groundwater encountered during drilling should be monitored with chloride strips to enable the selection of the most appropriate abandonment material, should high salinity water be encountered. Salinity has deleterious effect on the swelling rate of compacted bentonite, therefore bentonite grout, chips, or pellets will not be appropriate in high-salinity water, leaving neat cement grout the preferred alternative.

Please find attached the General Concerns List. The Mining and Minerals Division exploratory application and associated filings can be found at:

<http://www.emnrd.state.nm.us/MMD/MARP/LordsburgWest.html>

Figure 1 a

Lordsburg West-Project Area



0 0.75 1.5 3 Miles

0 1.5 3 6 Kilometers

Scale 1:80,000

Datum: WGS84 Zone 12

N



Legend

- Project Area
- State Leases (KEX)
- KEX Patent
- Township Boundary
- Section
- USA Topo Maps

STATE ENGINEER OFFICE

Revised June 1972

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Public Service Company of New Mexico (PNM) Owner's Well No. _____
 Street or Post Office Address 2401 Aztec NE
 City and State Albuquerque, NM 87107

Well was drilled under Permit No. LV 661 EXPL and is located in the:

a. NW 1/4 NW 1/4 NW 1/4 1/4 of Section 34 Township 22S Range 18W N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
 Subdivision recorded in Hidalgo County.

d. X= _____ Y= _____ feet, N.M. Coordinate System _____ Zone in Grant.

(B) Drilling Contractor Rodgers & Co., Inc. License No. WD 225

Address 2815 Laleta Blvd. SW, Albuquerque, NM 87105

Drilling Began 07/17/03 Completed 08/17/03 Type tools Rotary Size of hole 12.25 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 380 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 119 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness In Feet	Description of Water Bearing Formation	Estimated Yield (gallons per minute)
From	To			
280	380	80	Sand and gravel	70

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
8 5/8		welded	-2	380	382	Cap	280	380

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				
0	340	12.25		140	Premix pipe

Section 5. PLUGGING RECORD

Plugging Contractor _____	No.	Depth in Feet		Cubic Feet of Cement
Address _____		Top	Bottom	
Plugging Method _____	1			
Date Well Plugged _____	2			
Plugging Approved By: _____	3			
State Engineer Representative _____	4			

FOR USE OF STATE ENGINEER ONLY

Date Received August 26, 2003 Quad _____ FWL _____ FSL _____

File No. LV-661-Expl Use Expl Location No. 22.18.34.111

Section 6. Log of Hole

Depth in Feet		Thickness In Feet	Color and Type of Material Encountered
From	To		
Surface	10	10	Pale yellowish brown (10YR 6/2), calcareous, clayey, very fine to fine sand
10	20	10	Pale yellowish brown (10YR 6/2) to light olive gray (5Y 5/2), calcareous, poorly sorted, subangular to subrounded, slightly clayey, very fine sand to granule gravel
20	35	15	Pale yellowish brown (10YR 6/2), calcareous, poorly sorted, subangular to subrounded, slightly clayey, very fine sand to pebble gravel
35	75	40	Pale yellowish brown (10YR 6/2), calcareous, siltstone
75	140	65	Pale yellowish brown (10YR 6/2), calcareous, poorly sorted, angular to sub- rounded, clayey, fine sand to dark greenish gray (5G 4/1), pebble gravel
140	185	45	Pale yellowish brown (10YR 6/2), medium sorted, angular to subrounded, silty, very coarse sand to granule gravel
185	225	40	Pale yellowish brown (10YR 6/2), poorly sorted, angular to subrounded, slightly clayey, very fine sand to pebble gravel
225	260	35	Pale yellowish brown (10YR 6/2), medium sorted, angular to subrounded, silty, very coarse sand to pebble gravel
260	280	20	Pale yellowish brown (10YR 6/2), well sorted, angular to subrounded, silty, granule to pebble gravel
280	380	80	Pale yellowish brown (10YR 6/2) to dark greenish gray (5G 4/1); poorly sorted, subangular to subrounded, fine sand to pebble gravel
380	500	140	Dark yellowish brown (10YR 4/2), slightly calcareous shale

Section 7. REMARKS AND ADDITIONAL INFORMATION

Depth of well = 380.00 ft. A 2.0 inch pilot hole was drilled to 500 feet.

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Ken Jalbot
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired, or deepened. When this form is used as a plugging record, only Section 5 need be completed.

STATE ENGINEER OFFICE
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Rail Rock LLC Owner's Well No. _____
Street or Post Office Address P.O. Box 548
City and State Lordsburg, NM 88030

Well was drilled under Permit No. LV-664-Exp1 and is located in the:
a. $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE of Section 36 Township 22S Range 19W N.M.P.M.
b. Tract No. _____ of Map No. _____ of the _____
c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Hidalgo County.
d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Kuester Well Drilling Co. License No. WD 1486
Address 1930 Hilltop Rd. Silver City, NM 88061
Drilling Began 11-18-05 Completed 1-2-06 Type tools Hammer Air-Rotary Size of hole 7 3/4 in.
Elevation of land surface or _____ at well is _____ ft. Total depth of well 1200 ft.
Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 60 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
90	140	50	Volcanics (Black)	20

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
8 1/2" ID	Sched. 40 PVC		0	25	25	Surface Casing Cemented		
5" ID	Sched. 40 PVC		0	203	203	certa-lock	103	203

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by: _____

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

State Engineer Representative

Date Received January 10, 2006

FOR USE OF STATE ENGINEER ONLY

Quad _____ FWL _____ FSL _____

File LV-664

Use: Deepen

Location: 22.19.36.223

[illegible]

Section 7. REMARKS AND ADDITIONAL INFORMATION

Lat. $32^{\circ}21'10.1''$
Long. $108^{\circ}44'41.8''$

Long. 108°44'41.8"

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Serek Kuester
Driller

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGINEER OFFICE

WELL RECORD

REVISED 12 PM 1 07
Revised June 1972STATE ENGINEER OFFICE
SANTA FE, N.M. 87501

Section 1. GENERAL INFORMATION

(A) Owner of well Mrs Rita Hill Owner's Well No. LV 520
 Street or Post Office Address Box 253 Shakespeare
 City and State Lordsburg N.M. 88045

Well was drilled under Permit No. LV-520 and is located in the:

a. 1/4 1/4 SE 1/4 SW 1/4 of Section 6 Township 23S Range 18 W N.M.P.M.
 b. Tract No. _____ of Map No. _____ of the _____
 c. Lot No. _____ of Block No. _____ of the _____
 Subdivision, recorded in _____ County.
 d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in
 the _____ Grant.

(B) Drilling Contractor W.C. Toney License No. 542--WD

Address Route 8 Box 45

Drilling Began 8--15 Completed 8-16 Type tools DHD Size of hole 6" in.

Elevation of land surface or _____ at well is 4800 ft. Total depth of well 100 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 36 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
<u>0</u>	<u>100</u>	<u>100</u>	<u>Blue Igneous</u>	<u>10-15</u>

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
<u>6"</u>					<u>6 FT.</u>			

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____
 Address _____
 Plugging Method _____
 Date Well Plugged _____
 Plugging approved by: _____

State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
<u>1</u>			
<u>2</u>			
<u>3</u>			
<u>4</u>			

FOR USE OF STATE ENGINEER ONLY

Date Received August 12, 1976

Quad _____ FWL _____ FSL _____

File No. LV-520 Use Stock Location No. 23.18.6.34

[illegible]

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

W. C. Toney
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. W is as a 5 ha

General Concerns Related to NMOSE Regulation of Exploratory Borehole Drilling Encountering Groundwater and Associated Plugging of those Borings

Well drilling activities, including exploratory borehole drilling (drilling of “mine drill holes”) that penetrate a water-bearing stratum and well plugging, are regulated in part under 19.27.4 NMAC (New Mexico Administrative Code) promulgated 6/30/2017, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the NMOSE (New Mexico Office of the State Engineer). Therefore, a New Mexico licensed Well Driller shall perform the drilling and plugging of exploratory boreholes that encounter groundwater.

Additionally, all onsite well drilling activities, including but not limited to exploratory borehole drilling encountering groundwater and plugging of such water-bearing boreholes shall be conducted under the supervision of the New Mexico licensed Well Driller or a NMOSE-registered Drill Rig Supervisor under the direction of the licensed Well Driller.

Plugging of exploratory boreholes that encounter groundwater will occur under joint jurisdiction of the NMOSE and MMD (Mining and Minerals Division). Filing and acceptance of the NMOSE Well Plugging Plan of Operations (http://www.ose.state.nm.us/STST/Forms/WD-08%20Well%20Plugging%20Plan%20of%20Operations_2016-01-20_final.pdf) in conjunction with filing NMOSE Applications for Permit to Drill a Well with no Consumptive Use of Water (http://www.ose.state.nm.us/WR/Forms/WR-07%20Application%20for%20Permit%20to%20Drill%20a%20Well%20with%20No%20Consumptive%20Use_2012-06-14_final.pdf) are required where it is expected water-bearing stratum/strata may be penetrated by project boreholes.

Additional NMOSE filings will be required where it is requested that an exploratory borehole be converted to a water well. The well design and construction shall be subject to the provisions of 19.27.4 NMAC Regulations. Appropriation of water from such a conversion may require a water right. **The MMD may disallow the conversions of exploratory borings to water wells if not permitted specifically in the MMD permit.**

Any exploration drilling where a water-bearing stratum is encountered will be subject to pertinent sections of those rules and regulations contained in 19.27.4 NMAC (6/30/2017), including but not limited to Sections 19.27.4.30.C NMAC for plugging and abandonment of non artesian wells; 19.27.4.31 NMAC for artesian wells; and 19.27.4.36 NMAC for mine drill holes that encounter water. A complete version of the NMOSE 19.27.4 NMAC regulations can be found on the NMOSE website at:
<http://164.64.110.239/nmac/parts/title19/19.027.0004.htm>

Use/extraction of Temporary Casing

When drilling through caving overburden or unconsolidated geologic units, use of temporary casing may be desired. Any temporary casing should be inserted into a borehole of sufficiently large diameter to allow easy extraction upon termination of all drilling. To help prevent deleterious fall-in or drainage of cuttings/sediments into the annulus outside the temporary casing, the top of the annulus should be made appropriately fluid-tight.

If the temporary casing becomes stuck in-place, difficulties in the proper plugging of the borehole and resultant potential for commingling of aquifers or surface water drainage may occur via an

unsealed annulus. When setting of temporary casing occurs or is expected, appropriate detail of the proposed casing extraction and borehole clean-out process prior to plugging will be required in the NMOSE Well Plugging Plan of Operations if the borehole encounters a water-bearing stratum. Should casing be left in a water-bearing boring, 19.27.4 NMAC provisions apply, including those requiring an appropriate type and extent of annular seal surrounding the well casing.

Exploratory Borehole Plugging

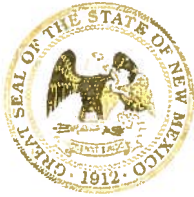
Terms of borehole plugging will be established jointly by the evaluation of the NMOSE Well Plugging Plan of Operations and the review of the relevant MMD application for water-bearing boreholes. Approved high-solids bentonite abandonment-grade sealants and/or approved cement slurries will be required for plugging as deemed hydrogeologically appropriate by the agencies. If the exploratory borings do not encounter groundwater, MMD plugging regulations (19.10.3 NMAC) prevail over those of 19.27.4 NMAC.

NMOSE well plugging regulations require tremie placement of the column of well sealant, which shall extend from the bottom of the borehole to ground surface. The NMOSE defers to the discretion of the MMD for the choice of sealant versus natural fill in the upper ten to twelve feet of a borehole plug to facilitate site restoration.

Required plugging of water-bearing exploratory borings shall occur within the timeframe specified by either the NMOSE or MMD. The MMD may enforce a plugging time frame that would minimize cave-in and the potential for incomplete plugging due to blockages in the borehole.

Drill Rig Fuels, Oils and Fluids

Drill rigs contain and consume fuels, oil, and hydraulic fluids, and are subject to leaks. The rig often remains in-place longer than other pieces of exploration equipment onsite, are frequently running, and are positioned immediately above and adjacent to the open borehole. As a standard practice to prevent contamination and reduce site cleanup activities, it may be beneficial to use bermed, impermeable ground sheeting under the drill rig. Consideration of bermed containment volume sufficient to accommodate a high-intensity precipitation event is also a good practice.



STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

Susana Martinez
Governor

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338

April 25, 2018

Clint Chisler
Mining Act Reclamation Program
Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Minimal Impact Exploration Permit , Lordsburg West Exploration, HI019EM (HPD log 107713)

Dear Mr. Chisler:

This letter is in response to the aforementioned minimal impact exploration permit application received at the Historic Preservation Division (HPD) on April 18, 2018. The application indicates that the project is located in Township 22, South Range 19 West, Sections 32 and 33; Township 23, South Range 19 West, Sections 4, 5, 7, 8, 1, 16, 17, 29 and 33.

I reviewed our records to determine if cemeteries, burial grounds or cultural resources listed on the State Register of Cultural Properties or the National Register of Historic Places exist within or near the permit area. Our records show that there are no cultural resources listed on the National Register or State Register within the proposed permit area and no known cemeteries or burial grounds. The Butterfield Trail (SR 173) is to the north of proposed drill holes (PDs18-E). Although there are no cultural resources listed on the State or National Register, our records show archaeological surveys near the permit area, but none that address the direct area of potential effects (APE).

The application also indicates that the project APE is on lands owned by the Bureau of Land Management, Las Cruces District Office (BLM) and the New Mexico State Land Office (SLO). If this is correct, the BLM and SLO will consider project effects on any archaeological sites that may be eligible for listing on the National Register pursuant to Section 106 of the National Historic Preservation Act, and New Mexico's Cultural Properties Act and Cultural Properties Protection Act. The BLM and SLO may require avoidance of any eligible archaeological sites and an archaeological monitor to ensure that eligible sites are not affected.

The application indicates that an archaeological survey has been contracted for the APE. We have no record of consultation for the undertaking, although we anticipate that LCDO will consult with us, once they have received the report.

Please do not hesitate to contact me if you have any questions regarding these comments. I can be reached by telephone at (505) 827-4225 or by email at bob.estes@state.nm.us .

Sincerely,



Bob Estes Ph.D.
HPD staff Archaeologist

From: Yates, Jack
To: [Chisler, Clinton, EMNRD](#)
Subject: Request for Review and Comment on Lordsburg West Exploration Project
Date: Thursday, April 19, 2018 12:57:18 PM
Attachments: [image001.png](#)
[image002.png](#)

Clinton,

I received your letter regarding the above referenced project/permit application. SLO does not have any comments at this time. Kennecott has obtained an SLO Mineral Lease, has a bond and has satisfied all SLO requirements to conduct exploration on State Trust Land (provided they receive appropriate approval from MMD).

While I would accompany you on the site tour, I am already scheduled to be at a mine site elsewhere in the state at that time.

Thanks,

-Jack

Jack Yates

Minerals Manager
Oil, Gas and Minerals Division
505.827.5750
New Mexico State Land Office
310 Old Santa Fe Trail
P.O. Box 1148
Santa Fe, NM 87504-1148
jyates@slo.state.nm.us
nmstatelands.org

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From: [Roth, Daniela, EMNRD](#)
To: [Chisler, Clinton, EMNRD](#)
Subject: RE: Minimal Impact Exploration Permit Application, Lordsburg West Exploration (No. HI019EM)
Date: Monday, April 23, 2018 8:46:23 AM

Dear Clinton Chisler:

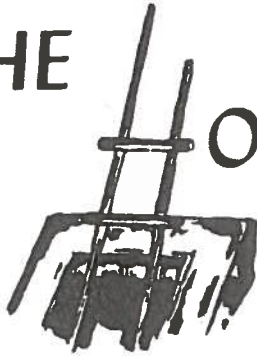
Thank you for giving me the opportunity to review and comment on the Minimal Impact Exploration Permit Application, Lordsburg West Exploration Project, in Hidalgo Co., NM (Permit Tracking No. HI019EM). The permit areas are within two Important Plant Areas of New Mexico (Northern Animas Valley and Pyramid Mountains (<http://www.emnrd.state.nm.us/SFD/>)). The state listed endangered night-blooming cereus (*Peniocereus greggii* var. *greggii*) and the Chihuahua scurf pea (*Pedimelum pentaphyllum*) are known to occur in these areas (<http://nmrareplants.unm.edu/index.html>). Therefore I highly recommend surveys for these endangered species during the flowering season, when they are easiest to detect. If plants are found, they should be avoided, or impacts should be minimized through a variety of mitigation measures available.
Please let me know if I can be of further help.

Sincerely,

Daniela Roth

Botany Program Coordinator
EMNRD – Forestry Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3347
<http://www.emnrd.state.nm.us/SFD/>

THE HOPI TRIBE



Timothy L. Nuvangyaoma
CHAIRMAN

Clark W. Tenakhongva
VICE-CHAIRMAN

April 30, 2018

Fernando Martinez, Director, Mining and Minerals Division
Attention: Clint Chisler
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505



Dear Mr. Martinez,

This letter is in response to your correspondence dated April 16, 2018, regarding an application from Kennecott Exploration Company for its Lordsburg West Exploration Project, permit tracking number HI019EM, on Bureau of Land Management, State and private land in Hildago County. The Hopi Tribe claims cultural affiliation to prehistoric cultural groups in New Mexico. The Hopi Cultural Preservation Office supports identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, and we consider the archaeological sites that are habitations of our ancestors to be "footprints" and Hopi Traditional Cultural Properties. Therefore, we appreciate your solicitation of our input and your efforts to address our concerns.

As you know from our previous letters, the Hopi Cultural Preservation Office requests consultation on any proposal in New Mexico that has the potential to effect prehistoric cultural resources, including review of the cultural resources survey of the area of potential effect. Therefore, to enable us to determine if there are known cultural resources in the vicinity of this project that are significant to the Hopi Tribe, we hereby request a copy of the cultural resources survey of the project area of potential from the Bureau of Land Management and New Mexico Department of Cultural Affairs Historic Preservation Division.

In addition, we recommend that if any cultural features or deposits are encountered during project activities, these activities must be discontinued in the immediate area of the remains, and the State Historic Preservation Office must be consulted to evaluate their nature and significance. If any Native American human remains or funerary objects are discovered during project activities they must be immediately reported as required by law.

For your information and future correspondences, Timothy L. Nuvangyaoma is now Chairman of the Hopi Tribe. Should you have any questions or need additional information, please contact Terry Morgart at tmorgart@hopi.nsn.us. Thank you for your consideration.

Respectfully,

Stewart B. Koyiyumtewa, Interim Manager
Hopi Cultural Preservation Office

xc: Bureau of Land Management
New Mexico State Historic Preservation Office



White Mountain Apache Tribe

Office of Historic Preservation

PO Box 1032

Fort Apache, AZ 85926

Ph: (928) 338-3033 Fax: (928) 338-6055

To: Clinton M. Chisler, Reclamation Soil Scientist Mining and Mineral Division

Date: April 17, 2018

Re: Lordsburg West Minimal Impact Exploration Permit HI019EM

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The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the proposed project, dated April 16, 2018. In regards to this, please attend to the following checked items below.

Please refer to the additional notes in regards to the proposed projects:

Thank you for allowing the White Mountain Apache tribe the opportunity to review and respond to the above proposed request for comment letter regarding the Lordsburg West Minimal Impact Exploration project, in Lordsburg, New Mexico. We've determined the proposed project plans will "Not have an Adverse Effect" on the White Mountain Apache tribe's historic properties and/or traditional cultural properties.

Regardless, any/all ground disturbing activities should be monitored "if" there are reasons to believe that there are human remains and/or funerary objects present, and if such remains are encountered they shall be treated with respect and handled accordingly until such remains are repatriated to the affiliated tribe.

Thank you. We look forward to continued collaborations in the protection and preservation of places of cultural and historical importance.

Sincerely,

Mark T. Altaha

White Mountain Apache Tribe - THPO