

**From:** [Valentine, Lloyd, OSE](#)  
**To:** [Stanley King](#)  
**Cc:** [Ennis, David, EMNRD](#); [Moeny, John, NMENV](#); [Bob Moore](#); [Shepherd, Holland, EMNRD](#); [Leia Barnett](#); [Cordelia Rose](#); [mary.newkirk@yahoo.com](#); [niels mandoe](#); [kathy Knapp](#); [John Gebhardt](#); [Linda Gebhardt](#); [allysonsiwik](#); [Vicki Moore](#); [Marianne Scharn](#); [Mylea Bayless](#); [clauss.gary@gmail.com](#)  
**Subject:** RE: [EXTERNAL] Re: Copy of Permit CA027EM, Summa Silver Mogollon  
**Date:** Monday, October 18, 2021 4:21:05 PM  
**Attachments:** [Exploratory Permit.pdf](#)  
[Plugging Plan.pdf](#)  
[3 acre-feet Permit.pdf](#)

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Mr. King,

Attached are the permit to drill exploratory wells and the plugging plan. Faust Cattle Co. and Summa Silver Mining Corp. have also filed a joint application for a permit to use up to 3 acre-feet of water in a one-year period as provided by NM State Statute. This permit was approved last week on October 14. I have included that statute below. The applicant is only allowed one of these permits for a designated project. Any additional water use would require a permit. The 3 acre-feet permit does not require notice to the public. I have attached this permit as well.

Lloyd Valentine  
District 3 Manager  
Office of the State Engineer

**72-12-1.3. Underground public waters; temporary uses.**

If a person, firm, corporation or the state desires to use underground public water in an amount not to exceed three acre-feet for a definite period of not to exceed one year in prospecting, mining or construction of public works, highways and roads or drilling operations designed to discover or develop the natural mineral resources of the state, only the application referred to in Section [72-12-3](#) NMSA 1978 shall be required. Separate application shall be made for each proposed use, whether in the same or in different basins. Upon the filing of an application, the state engineer shall make an examination of the facts and, if the proposed use will not permanently impair any existing rights of others, the state engineer shall grant the application. If the state engineer finds that the proposed use sought will permanently impair such rights, there shall be advertisement and hearing as provided in the case of applications made under Section [72-12-3](#) NMSA 1978.

**From:** Stanley King <kingstanley67@gmail.com>  
**Sent:** Monday, October 18, 2021 11:16 AM  
**To:** Valentine, Lloyd, OSE <Lloyd.Valentine@state.nm.us>  
**Cc:** Ennis, David, EMNRD <David.Ennis@state.nm.us>; Moeny, John, NMENV <John.Moeny@state.nm.us>; Bob Moore <sosilvercreek@gmail.com>; Shepherd, Holland, EMNRD <holland.shepherd@state.nm.us>; Leia Barnett <lbarnett@wildearthguardians.org>; Cordelia Rose <cordelia.rose3@gmail.com>; mary.newkirk@yahoo.com; niels mandoe <nmandoe@gilinet.com>; kathy Knapp <kathyknapp01@gmail.com>; John Gebhardt <gebhardt47@mac.com>; Linda Gebhardt <gebhardt103@att.net>; allysonsiwik <allysonsiwik@gmail.com>; Vicki Moore <vmoores50@gmail.com>; Marianne Scharn <mariannescharn@gmail.com>; Mylea Bayless <myleabayless@gmail.com>; clauss.gary@gmail.com

**Subject:** Re: [EXTERNAL] Re: Copy of Permit CA027EM, Summa Silver Mogollon

Good Morning Mr. Valentine,

We would like to follow up on this issue: <https://www.emnrd.nm.gov/mmd/mining-act-reclamation-program/pending-and-approved-exploration-applications/minimal-impact/ca027em-summa-silver-mogollon/>

In review of the attached permit, we see the OSE permit to drill wells and plug wells WR 07 and WR 08 respectively as required by your office have not been approved. If these OSE permits are in fact approved by your office, please forward a copy to us.

The drilling contractor and equipment are on site as of last week and we have observed two 3,000 gallon loads of water being transported to the drill sites. One on Friday afternoon (10/15/21) and one on Sunday (10/17/21).

The question remains, is the water being transported by tender to the drill site obtained from a water source in the San Francisco/ Gila Basin that is designated for consumptive use in Mogollon for exploratory drilling? If the answer is yes, then we would like a copy of this water right forwarded to us.

Thank you for your assistance in this matter,

co signers:

Stanley King  
Bob Moore  
Vicki Moore  
Niels Mandoe  
Marianne Scharn  
John Gebhardt  
Linda Gebhardt  
Kathy Knapp

On Thu, Sep 16, 2021 at 8:31 AM Valentine, Lloyd, OSE <[Lloyd.Valentine@state.nm.us](mailto:Lloyd.Valentine@state.nm.us)> wrote:

Mr. King,

We have received new applications from Summa Silver Corp this week to drill exploratory wells for mining purposes. If approved, no water will be permitted to be withdrawn from these wells. These permits would just allow them to drill the wells and then plug them within a year of the permit being approved, unless another permit to use these wells for a different purpose is filed.

Staff in this office will be asking Summa Silver Corp. where they are planning to get their water from for there water needs. Once we have that discussion, we will be better able to identify if an application to use that water will be needed. If they do intend to buy water from "Faust Ranch in

Alma”, we will review those water rights. Faust Ranch would have to have a water right that would allow them to sell water for commercial purposes. If they don’t have this type of water right, an application would most likely need to be made that would require the public to be put on notice, a protest period to occur, and an possibly an impairment analysis to take place prior to our office approving it.

It is really difficult for our office to speculate without finding out from Summa Silver Corp. more details. There are instances where the public might not be put on public notice or an impairment analysis is not needed. I can assure you that our office will be asking these questions to Summa Silver Corp..

Respectfully,

Lloyd Valentine  
District 3 Manager  
Office of the State Engineer

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**From:** Ennis, David, EMNRD <[David.Ennis@state.nm.us](mailto:David.Ennis@state.nm.us)>

**Sent:** Wednesday, September 15, 2021 2:24 PM

**To:** Stanley King <[kingstanley67@gmail.com](mailto:kingstanley67@gmail.com)>; Valentine, Lloyd, OSE <[Lloyd.Valentine@state.nm.us](mailto:Lloyd.Valentine@state.nm.us)>; Moeny, John, NMENV <[John.Moeny@state.nm.us](mailto:John.Moeny@state.nm.us)>

**Cc:** Bob Moore <[sosilvercreek@gmail.com](mailto:sosilvercreek@gmail.com)>; Shepherd, Holland, EMNRD <[holland.shepherd@state.nm.us](mailto:holland.shepherd@state.nm.us)>; Leia Barnett <[lbarnett@wildearthguardians.org](mailto:lbarnett@wildearthguardians.org)>; Cordelia Rose <[cordelia.rose3@gmail.com](mailto:cordelia.rose3@gmail.com)>; [mary.newkirk@yahoo.com](mailto:mary.newkirk@yahoo.com); niels mandoe <[nmandoe@gilanet.com](mailto:nmandoe@gilanet.com)>; kathy Knapp <[kathyknapp01@gmail.com](mailto:kathyknapp01@gmail.com)>; John Gebhardt <[gebhardt47@mac.com](mailto:gebhardt47@mac.com)>; Linda Gebhardt <[gebhardt103@att.net](mailto:gebhardt103@att.net)>; allysonsiwik <[allysonsiwik@gmail.com](mailto:allysonsiwik@gmail.com)>; Vicki Moore <[vmooore50@gmail.com](mailto:vmooore50@gmail.com)>; Marianne Scharn <[mariannescharn@gmail.com](mailto:mariannescharn@gmail.com)>; Mylea Bayless <[myleabayless@gmail.com](mailto:myleabayless@gmail.com)>; [rskaggs@gmail.com](mailto:rskaggs@gmail.com); [clauss.gary@gmail.com](mailto:clauss.gary@gmail.com)

**Subject:** RE: [EXTERNAL] Re: Copy of Permit CA027EM, Summa Silver Mogollon

Mr. King,

I am your contact for any compliance issues with the conditions in permit number CA027EM. I am planning on performing an inspection of the drilling project once the project commences.

The other questions in the email below are the jurisdiction of the OSE.

Thanks,  
DJ

*DJ Ennis, P.G.  
Mining and Minerals Division  
1220 S. St. Francis Dr.*

Santa Fe, NM 87505  
(505) 372-8634 cell/office  
[david.ennis@state.nm.us](mailto:david.ennis@state.nm.us)

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**From:** Stanley King <[kingstanley67@gmail.com](mailto:kingstanley67@gmail.com)>  
**Sent:** Wednesday, September 15, 2021 12:40 PM  
**To:** Ennis, David, EMNRD <[David.Ennis@state.nm.us](mailto:David.Ennis@state.nm.us)>; Valentine, Lloyd, OSE <[Lloyd.Valentine@state.nm.us](mailto:Lloyd.Valentine@state.nm.us)>; Moeny, John, NMENV <[John.Moeny@state.nm.us](mailto:John.Moeny@state.nm.us)>  
**Cc:** Bob Moore <[sosilvercreek@gmail.com](mailto:sosilvercreek@gmail.com)>; Shepherd, Holland, EMNRD <[holland.shepherd@state.nm.us](mailto:holland.shepherd@state.nm.us)>; Leia Barnett <[barnett@wildearthguardians.org](mailto:barnett@wildearthguardians.org)>; Cordelia Rose <[cordelia.rose3@gmail.com](mailto:cordelia.rose3@gmail.com)>; [mary.newkirk@yahoo.com](mailto:mary.newkirk@yahoo.com); niels mandoe <[nmandoe@gilanet.com](mailto:nmandoe@gilanet.com)>; kathy Knapp <[kathyknapp01@gmail.com](mailto:kathyknapp01@gmail.com)>; John Gebhardt <[gebhardt47@mac.com](mailto:gebhardt47@mac.com)>; Linda Gebhardt <[gebhardt103@att.net](mailto:gebhardt103@att.net)>; allysonsiwik <[allysonsiwik@gmail.com](mailto:allysonsiwik@gmail.com)>; Vicki Moore <[vmoore50@gmail.com](mailto:vmoore50@gmail.com)>; Marianne Scharn <[mariannescharn@gmail.com](mailto:mariannescharn@gmail.com)>; Mylea Bayless <[myleabayless@gmail.com](mailto:myleabayless@gmail.com)>; [rskaggs@gmail.com](mailto:rskaggs@gmail.com); [clauss.gary@gmail.com](mailto:clauss.gary@gmail.com)  
**Subject:** [EXTERNAL] Re: Copy of Permit CA027EM, Summa Silver Mogollon

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good Afternoon Mr. Ennis,

It appears the issuance of the Minimal Impact Drilling Permit for Summa Silver Corp. allows this company to proceed. As concerned residents of Mogollon, who is our contact within the State of NM to ensure the "drillers" are in compliance with the terms set forth in this permit?

It also appears the OSE well permits WR 07 and WR 08 are not approved by the OSE at this time. It is surprising and concerning that the EMNRD issued a permit to proceed without the OSE well drilling permits being completed.

We understand the State of New Mexico EMNRD does not require an applicant to identify a water source for core drilling prior to the issuance of a permit. As you quoted Summa Silver Corp., "*We will be purchasing water from the Faust Ranch in Alma as needed.*" We were also informed by Mr. Valentine of the OSE, "if Summa Silver Corp decides they have a need for a consumptive water use, they will have to acquire water from an existing source and, if needed, **file appropriate applications with our office to change that water right to fit their needs.** If this type of application were to be submitted to our office, **Summa Silver Corp would be required to put the public on notice, the public would have a chance to protest the application,** and the OSE would conduct an impairment analysis on the request prior to acting on such."

We need to ask these questions.

Is the "Faust Ranch in Alma" the "existing (water) source"?

Is it Summa Silver Corp. who "decides they have a need for a consumptive water use" ? (It is our understanding core drilling requires consumptive water use.)

Does the EMNRD or the OSE define the water consumed for core drilling "consumptive"? If not, why



not?

Is the "Faust Ranch in Alma" water source permitted to be consumed at Summa Silver Corp. drill sites in Mogollon for mineral core drilling? If so, is this water right transfer public record?

If not, will Summa Silver Corp. be required to "file appropriate applications with our office (OSE) to change that water right to fit their needs."?

With all due respect for the agencies involved in this Permitting process, we find it concerning that a foreign company can be permitted to proceed with mineral exploration in New Mexico where water IS THE issue, and in that regard, the permit application appears to be incomplete.

Thank you for your assistance in this matter.

co signers:

Stanley King  
Bob Moore  
Vicki Moore  
Niels Mandoe  
Marianne Scharn  
John Gebhardt  
Linda Gebhardt  
Kathy Knapp

On Wed, Sep 8, 2021 at 2:38 PM Ennis, David, EMNRD <[David.Ennis@state.nm.us](mailto:David.Ennis@state.nm.us)> wrote:

Mr. King and Mr. Moore,

In previous correspondence, a request was made for a copy of the permit issued by MMD to Summa Silver for the Mogollon exploration project. In accordance with your request, a copy of the permit can be found on MMD's website at:

<https://www.emnrd.nm.gov/mmd/mining-act-reclamation-program/pending-and-approved-exploration-applications/minimal-impact/ca027em-summa-silver-mogollon/>

Thanks,  
DJ

*DJ Ennis, P.G.  
Mining and Minerals Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505  
(505) 372-8634 cell/office*

[david.ennis@state.nm.us](mailto:david.ennis@state.nm.us)



STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER  
District 3 Office, Deming, NM

John R. D'Antonio Jr., P.E.  
State Engineer

321 W. Spruce St.  
Deming, New Mexico 88030  
PHONE: (575) 546-2851  
FAX: (575) 546-2290

October 14, 2021

FILE: GSF-4734

Faust Cattle Co  
Joseph Faust  
54 Hugh Bar Mesa  
Glenwood, NM 88039

Summa Silver Corp.  
Chris York  
2552 Hamilton Creek Trail  
Elko, NV 89801

Greetings:


Enclosed is your copy of permit for Prospecting/Mining Use Well Permit GSF-4734, which has been accepted for filing.

Your attention is called to the Condition of Approval under permit GSF-4734, which states as follows:

- 5A. The well owner shall cause to be installed, a totalizing meter before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor for each calendar month on or before the 10<sup>th</sup> day of the following month.
15. This permit authorizes the temporary diversion and use of water for prospecting, mining or construction of public works, highways and roads or drilling operations designed to discover or develop the natural mineral resources of the state. The total diversion of water under this permit shall not exceed approved div acre-feet per year. Diversion and use of water under this permit shall not exceed a period of one year from the date of approval.

Sincerely,

Lloyd R. Valentine III  
District 3 Manager

By:   
Teresa Montellano  
Domestic Well Technician  
Gila-San Francisco Basin

TM:tm

Encl: Approved Permit  
Meter installation and Inspection Form  
cc: State Engineer

File No. GSF-GSF-4734

## NEW MEXICO OFFICE OF THE STATE ENGINEER



### APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, OR 72-12-1.3 NEW MEXICO STATUTES



For fees, see State Engineer website: <http://www.ose.state.nm.us/>

5-  
3-23970

**1. APPLICANT(S)**

Name: <b>FAUST CATTLE CO</b>	Name: <b>SUMMA SILVER CORP.</b>
Contact or Agent: <input type="checkbox"/> check here if Agent <b>JOSEPH FAUST</b>	Contact or Agent: <input type="checkbox"/> check here if Agent <b>CHRIS YORK</b>
Mailing Address: <b>54 HUGH BAR MESA</b>	Mailing Address: <b>2552 Hamilton Creek Trail</b>
City: <b>GLENWOOD</b>	City: <b>Elko</b>
State: <b>NM</b> Zip Code: <b>88039</b>	State: <b>NV</b> Zip Code: <b>89801</b>
Phone: <b>505-360-4684</b> <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work): <b>575-539-2375</b>	Phone: <b>618-263-8664</b> <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work):
E-mail (optional): <b>jandlfaust@gilanet.com</b>	E-mail (optional): <b>CYORK@SUMMASILVER.COM</b>

Check here if existing well. Enter OSE File No. **GSF-25-52**

**2. WELL LOCATION Required: Coordinate location must be New Mexico State Plane (NAD 83), UTM (NAD 83), or Lat/Long (WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.**

NM State Plane (NAD83) - In feet	NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone <input type="checkbox"/>	X (in feet): Y (in feet):
UTM (NAD83) - In meters	UTM Zone 13N <input type="checkbox"/> UTM Zone 12N <input type="checkbox"/>	Easting (in meters): Northing (in meters):
Lat/Long (WGS84) - To 1/10 <sup>th</sup> of second <input checked="" type="checkbox"/> Check if seconds are decimal format	Lat: <b>33</b> deg Long: <b>108</b> deg	<b>48.06</b> sec <b>20.52</b> sec
Other Location Information (complete the below, if applicable):		
PLSS Quarters or Halves: <b>SE 1/4 SE 1/4 NE 1/4</b> Section: <b>4</b> Township: <b>11 S</b> Range: <b>20 W</b>		
County: <b>CATRON</b>		
Land Grant Name (if applicable):		
Lot No:	Block No:	Unit/Tract: <b>41</b> Subdivision:
Hydrographic Survey:	Map:	Tract:
Other description relating well to common landmarks, streets, or other: <b>US SEGREGATED</b>		
Well is on Land Owned by (Required): <b>FAUST CATTLE CO</b>		

**FOR OSE INTERNAL USE**

Application for Permit, Form wr-01, Rev 10/29/2020

File No.: <b>GSF-4734</b>	Trn. No.: <b>710236</b>	Receipt No.:
Well Tag ID No. (if applicable): <b>301EE</b>	Sub-Basin: <b>GSGW</b>	Log Due Date: <b>na</b>



**3. PURPOSE OF USE**

Domestic use for one household  
 Livestock watering  
 Domestic use for more than one household. Number of households \_\_\_\_\_ *Complete and attach form WR-01m "MULTIPLE home-owner info"*  
 Drinking and sanitary uses that are incidental to the operations of a governmental, commercial, or non-profit facility  
 Prospecting, mining or drilling operations to discover or develop natural resources  
 Construction of public works, highways and roads  
 Domestic use for one household and livestock watering  
 Domestic use for multiple households and livestock watering \_\_\_\_\_ *Complete and attach form WR-01m "MULTIPLE home-owner info"*  
 Domestic well to accompany a house or other dwelling unit constructed for sale  
 New well (with new purpose)  
 Amend purpose of use on existing well  
 No change in purpose

OCT 12 2021  
STATE ENGINEERS OFFICE  
DEMING NEW MEXICO

**4. WELL INFORMATION: CHECK THOSE THAT APPLY**  Existing Well  Known Artesian

File Information: (If existing well, provide OSE no. & indicate below if well is to be replacement, repaired or deepened, or supplemental. If new well, leave blank, as OSE must assign no.)

OSE Well No. (If Existing) <u>GSF-23-S-2</u>	New Well No. (provided by OSE)
Well Driller Name: <u>MCBEE DRILLING</u>	Well Driller License Number: <u>A-2388</u>
Approximate Depth of Well (feet): <u>62'</u>	Outside Diameter of Well Casing (inches): <u>16"</u>

<input type="checkbox"/> Replacement well (List all existing wells if more than one):	<input type="checkbox"/> Repair or Deepen: <input type="checkbox"/> Clean out well to original depth <input type="checkbox"/> Deepen well from _____ to _____ ft. <input type="checkbox"/> Other (Explain):	<input type="checkbox"/> Supplemental well (List OSE No. for all wells this will supplement):
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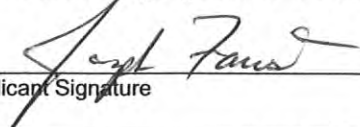
**5. ADDITIONAL STATEMENTS OR EXPLANATIONS (Use additional sheets if necessary)**

WELL WILL BE USED TO PROVIDE WATER FOR PROSPECTING, MINING, OR DRILLING OPERATIONS TO DISCOVER OR DEVELOP NATURAL RESOURCES.  
 SUMMA SILVA MOGOLLON, PERMIT NO. CA027EM

**ACKNOWLEDGEMENT**

I, We (name of applicant(s)), JOSEPH PAUST  
 Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

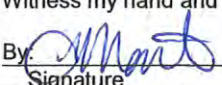
  
 Applicant Signature

\_\_\_\_\_  
 Applicant Signature

**ACTION OF THE OFFICE OF THE STATE ENGINEER (FOR OSE USE ONLY)**

This application is approved subject to the attached general and specific conditions of approval.

Witness my hand and seal this 14th day of October 20 21, for the New Mexico State Engineer,

By:   
 Signature Teresa Montellano/Domestic Well Technician  
 Print

FOR OSE INTERNAL USE

Well Tag ID Issued?  Yes  No

Application for Permit, Form wr-01, Rev 10/29/2020

File No.: <u>GSF-4734</u>	Trn No.: <u>710236</u>	Well ID Tag No.: <u>301EE</u>
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**NEW MEXICO STATE ENGINEER OFFICE  
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS  
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES**

**GENERAL CONDITIONS OF APPROVAL (A thru S)**

- 17-A The maximum combined diversion of all wells that may be appropriated under this permit is 3.000 acre-feet in any year (One acre-foot equals 325,851 gallons).
- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig; provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-D The production casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.
- 17-E To request a change to the purpose of use of water authorized under this permit, the permittee shall file an application with the State Engineer.
- 17-F An application for a new 72-12-1.1 NMSA 2003 domestic well permit where the proposed point of diversion is to be located on the same legal lot of record as an operational 72-12-1.1 NMSA domestic well shall be treated as an application for a supplemental well and the combined diversion may not exceed the maximum annual diversion permitted.
- 17-G If artesian water is encountered, the well driller shall comply with all rules and regulations pertaining to the drilling and casing of artesian wells.
- 17-H The drilling of the well and amount and uses of water permitted are subject to such limitations as may be imposed by a court or by lawful municipal or county ordinance which are more restrictive than the conditions of this permit and applicable State Engineer regulations.

Trn Desc: GSF 04734 PROSPECTING/MINING  
Log Due Date: \_\_\_\_\_  
Form: wr-01

File Number: GSF 04734  
Trn Number: 710236

**NEW MEXICO STATE ENGINEER OFFICE  
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS  
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES**

**GENERAL CONDITIONS OF APPROVAL (Continued)**

- 17-I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-J The well shall be set back a minimum of 50 ft. from an existing well of other ownership unless a variance has been granted by the State Engineer. The State Engineer may grant a variance for a replacement well or to allow for maximum spacing of the well from a source of groundwater contamination. The well shall be set back from potential sources of contamination in accordance with federal, state, and local requirements.
- 17-K Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.
- 17-L The permit is subject to cancellation for non-compliance with the conditions of approval or if otherwise not exercised in accordance with the terms of the permit.
- 17-M The right to divert water under this permit is subject to curtailment by priority administration as implemented by the State Engineer or a court.
- 17-N In the event of any change of ownership to this permit the new owner shall file a change of ownership form with the State Engineer in accordance with Section 72-1-2.1 NMSA 1978.
- 17-O This well permit shall automatically expire unless the well is completed and the well record is filed with the State Engineer within one year of the date of issuance of the permit.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.

**NEW MEXICO STATE ENGINEER OFFICE  
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS  
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES**

**GENERAL CONDITIONS OF APPROVAL (Continued)**

17-R The State Engineer shall supply a well identification tag for the well driller to firmly affix to the well casing or cap with a steel band upon completion in accordance with Subsection M of 19.27.4.29 NMAC.

The permit holder is responsible for maintaining the well identification tag.

Well Tag(s) associated with this permit:  
301EE

**GENERAL CONDITIONS OF APPROVAL (A thru S)**

17-S Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.

**SPECIFIC CONDITIONS OF APPROVAL**

17-5A The well owner shall cause to be installed, a totalizing meter before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor for each calendar month on or before the 10th day of the following month.

17-15 This permit authorizes the temporary diversion and use of water for prospecting, mining or construction of public works, highways and roads or drilling operations designed to discover or develop the natural mineral resources of the state. The total diversion of water under this permit shall not exceed 3.000 acre-feet per year. Diversion and use of water under this permit shall not exceed a period of one year from the date of approval.



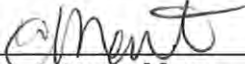
NEW MEXICO STATE ENGINEER OFFICE  
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS  
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions listed above.

Witness my hand and seal this 14 day of Oct A.D., 2021

John R. D Antonio, Jr., P.E., State Engineer

By:   
Teresa Montellano  
Gila-San Francisco Basin  
Domestic Well Technician

File No. GSF-04731

**NEW MEXICO OFFICE OF THE STATE ENGINEER**



**WR-07 APPLICATION FOR PERMIT TO DRILL**

**A WELL WITH NO WATER RIGHT**

(check applicable box):



20  
@ 5<sup>00</sup> each  
3-23809

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input checked="" type="checkbox"/> Other(Describe): Mineral Exploration
<input type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

Temporary Request - Requested Start Date: \_\_\_\_\_ Requested End Date: \_\_\_\_\_

Plugging Plan of Operations Submitted?  Yes  No

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO

JUN 28 2021

**1. APPLICANT(S)**

Name: Summa Silver	Name: Godbe Drilling
Contact or Agent: _____ check here if Agent <input type="checkbox"/>	Contact or Agent: _____ check here if Agent <input type="checkbox"/>
Chris York	
Mailing Address: 2552 Hamilton Creek Trl	Mailing Address: 62802 Ohlm Road
City: Elko	City: Montrose
State: NV	State: CO
Zip Code: 89801	Zip Code: 81403
Phone: 618-263-8664 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell	Phone: 970-240-6106 <input type="checkbox"/> Home <input type="checkbox"/> Cell
Phone (Work):	Phone (Work):
E-mail (optional): cyork@summasilver.com	E-mail (optional): godbedrilling@gmail.com

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO

SEP 13 2021

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.: <u>GSF-04731</u>	Trn. No.: <u>709515</u>	Receipt No.: <u>3-23809</u>
Trans Description (optional): <u>EXPL</u>		
Sub-Basin: <u>GSGW</u>	PCW/LOG Due Date: <u>10/31/2022</u>	

EPW

2. WELL(S) Describe the well(s) applicable to this application.

**Location Required:** Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).  
 District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

NM State Plane (NAD83) (Feet)       UTM (NAD83) (Meters)       Lat/Long (WGS84) (to the nearest 1/10<sup>th</sup> of second)  
 NM West Zone       Zone 12N  
 NM East Zone       Zone 13N  
 NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
MOG21-0007 GSF-4371-POD 7	704960	3698417	T10S R19W Section 28 SE
MOG21-0008 GSF-4371-POD 8	704960	3698417	T10S R19W Section 28 SE
MOG21-0005 GSF-4371-POD 5	705041	3698573	T10S R19W Section 27 SW
MOG21-0006 GSF-4371-POD 6	705041	3698573	T10S R19W Section 27 SW
MOG21-0009 GSF-4371-POD 9	705056	3698633	T10S R19W Section 27 SW

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 - POD Descriptions).  
 Additional well descriptions are attached:  Yes  No      If yes, how many 15

Other description relating well to common landmarks, streets, or other:  
 All Holes are approximately 0.5 miles north of the town of Mogollon adjacent to the Fanny Road

Well is on land owned by: Mack, John Jr. and Hott, Ann and Parker, Mary K.

Well information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached?  Yes  No  
 If yes, how many 20

Approximate depth of well (feet): Please see attachment      Outside diameter of well casing (inches): 3.895"  
 Driller Name: Godbe Drilling      Driller License Number: WD-1677

STATE ENGINEERS OFFICE  
 DEMING, NEW MEXICO  
 SEP 13 2021

STATE ENGINEERS OFFICE  
 DEMING, NEW MEXICO  
 JUN 28 2021

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Summa Silver has applied for an exploration drilling permit (permit number CA27EM) with the State of New Mexico Energy, Minerals and Natural Resources Department to perform silver exploration on patented mining claims outside of the town of Mogollon, New Mexico. Hole depths are dependent upon ground conditions and potential mineral alteration. If additional holes are planned, applications WR-07 and WD-08 will be submitted. Holes will not be used for withdrawal of water or for water monitoring purposes and will be abandoned within the guidelines of the "Office of the State Engineer Sealant Guidelines for Well Construction and Plugging" upon completion of the hole.

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: GSF-04731      Trm No.: 709515

GSW

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

<p><b>Exploratory:</b>  <input checked="" type="checkbox"/> Include a description of any proposed pump test, if applicable.</p>	<p><b>Pollution Control and/or Recovery:</b>  <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following:  <input type="checkbox"/> A description of the need for the pollution control or recovery operation.  <input type="checkbox"/> The estimated maximum period of time for completion of the operation.  <input type="checkbox"/> The annual diversion amount.  <input type="checkbox"/> The annual consumptive use amount.  <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation.  <input type="checkbox"/> The method and place of discharge.</p>	<p><b>Construction De-Watering:</b>  <input type="checkbox"/> Include a description of the proposed dewatering operation,  <input type="checkbox"/> The estimated duration of the operation,  <input type="checkbox"/> The maximum amount of water to be diverted,  <input type="checkbox"/> A description of the need for the dewatering operation, and,  <input type="checkbox"/> A description of how the diverted water will be disposed of.</p>	<p><b>Mine De-Watering:</b>  <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following:  <input type="checkbox"/> A description of the need for mine dewatering.  <input type="checkbox"/> The estimated maximum period of time for completion of the operation.  <input type="checkbox"/> The source(s) of the water to be diverted.  <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s).  <input type="checkbox"/> The maximum amount of water to be diverted per annum.  <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation.  <input type="checkbox"/> The quality of the water.</p>
<p><b>Monitoring:</b>  <input type="checkbox"/> Include the reason for the monitoring well, and,  <input type="checkbox"/> The duration of the planned monitoring.</p>	<p><input type="checkbox"/> The method of measurement of water produced and discharged.  <input type="checkbox"/> The source of water to be injected.  <input type="checkbox"/> The method of measurement of water injected.  <input type="checkbox"/> The characteristics of the aquifer.  <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system.  <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department.  <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.</p>	<p><b>Ground Source Heat Pump:</b>  <input type="checkbox"/> Include a description of the geothermal heat exchange project,  <input type="checkbox"/> The number of boreholes for the completed project and required depths.  <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and,  <input type="checkbox"/> The duration of the project.  <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.</p>	<p><input type="checkbox"/> The method of measurement of water diverted.  <input type="checkbox"/> The recharge of water to the aquifer.  <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project.  <input type="checkbox"/> The method and place of discharge.  <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project.  <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights.  <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.</p>

**ACKNOWLEDGEMENT**

I, We (name of applicant(s)), Chris York  
 Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Ch York 6/22/2021  
 Applicant Signature

\_\_\_\_\_  
 Applicant Signature

**ACTION OF THE STATE ENGINEER**

STATE ENGINEERS OFFICE  
 DEMING, NEW MEXICO  
**JUN 28 2021**

This application is:

approved  partially approved  denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 30th day of September 20 21, for the State Engineer,

John R. D'Antonio Jr., P.E., State Engineer

By: [Signature]  
 Signature

Lloyd R. Valentine III  
 Print

Title: \_\_\_\_\_  
 Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: Gsf-04731 Trm No.: 709515

*[Handwritten initials]*





# NEW MEXICO OFFICE OF THE STATE ENGINEER



STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
**JUN 28 2021**

## ATTACHMENT 1 POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

<b>a. Is this a:</b> <input type="checkbox"/> Move-From Point of Diversion(s) <input type="checkbox"/> Move-To Point of Diversion(s)		<b>b. Information on Attachment(s):</b> Number of points of diversion involved in the application: <u>20</u> Total number of pages attached to the application: <u>5</u>	
<input type="checkbox"/> Surface Point of Diversion      OR <input checked="" type="checkbox"/> Well			
Name of ditch, acequia, or spring:			
Stream or water course:			
Tributary of:			
<b>c. Location (Required):</b> Required: Move to POD location coordinate must be either New Mexico State Plane (NAD 83), UTM (NAD 83), or Lat/Long (WGS84)			
NM State Plane (NAD83) (feet) <input type="checkbox"/> NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone	UTM (NAD83) (meters) Zone 13N <input type="checkbox"/> Zone 12N <input checked="" type="checkbox"/>	<input type="checkbox"/> Lat/Long- (WGS84) 1/10 <sup>th</sup> of second	OTHER (allowable only for move-from descriptions - see application form for format) <input checked="" type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant
POD Number: MOG21-0016 GSF-4371-POD16	X or Longitude 705056	Y or Latitude 3698633	Other Location Description: T10S R19W Section 27 SW
POD Number: MOG21-0010 GSF-4371-POD10	X or Longitude 705070	Y or Latitude 3698734	Other Location Description: T10S R19W Section 27 SW
POD Number: MOG21-0017 GSF-4371-POD17	X or Longitude 705070	Y or Latitude 3698734	Other Location Description: T10S R19W Section 27 SW
POD Number: MOG21-0019 GSF-4371-POD19	X or Longitude 705070	Y or Latitude 3698734	Other Location Description: T10S R19W Section 27 SW
POD Number: MOG21-0020 GSF-4371-POD20	X or Longitude 705070	Y or Latitude 3698734	Other Location Description: T10S R19W Section 27 SW
POD Number: MOG21-0013 GSF-4371-POD13	X or Longitude 705008	Y or Latitude 3698714	Other Location Description: T10S R19W Section 28 SE
POD Number: MOG21-0018 GSF-4371-POD18	X or Longitude 705008	Y or Latitude 3698714	Other Location Description: T10S R19W Section 28 SE
POD Number: MOG21-0001 GSF-4371-POD1	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW
POD Number: MOG21-0002 GSF-4371-POD2	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
**SEP 13 2021**

FOR OSE INTERNAL USE

Form wr-08  
POD DESCRIPTIONS - ATTACHMENT 1

File Number: <u>GSF-04731</u>	Trm Number: <u>709515</u>
Trans Description (optional): <u>EXPL</u>	

*SPW*



# NEW MEXICO OFFICE OF THE STATE ENGINEER



## ATTACHMENT 1 POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

<b>a. Is this a:</b> <input type="checkbox"/> Move-From Point of Diversion(s) <input type="checkbox"/> Move-To Point of Diversion(s)		<b>b. Information on Attachment(s):</b> Number of points of diversion involved in the application: <u>20</u> Total number of pages attached to the application: <u>5</u>	
<input type="checkbox"/> Surface Point of Diversion      OR <input checked="" type="checkbox"/> Well			
Name of ditch, acequia, or spring:		STATE ENGINEERS OFFICE DEMING, NEW MEXICO	
Stream or water course:		JUN 28 2021	
Tributary of:			
<b>c. Location (Required):</b> Required: Move to POD location coordinate must be either New Mexico State Plane (NAD 83), UTM (NAD 83), or Lat/Long (WGS84)			
NM State Plane (NAD83) (feet) NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone <input type="checkbox"/>	UTM (NAD83) (meters) Zone 13N <input type="checkbox"/> Zone 12N <input checked="" type="checkbox"/>	<input type="checkbox"/> Lat/Long- (WGS84) 1/10 <sup>th</sup> of second	OTHER (allowable only for move-from descriptions - see application form for format) <input checked="" type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant
POD Number: <i>GSE-4371-POD 3</i> MOG21-0003	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW
POD Number: <i>GSE-4371-POD 4</i> MOG21-0004	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW
POD Number: <i>GSE-4371-POD 11</i> MOG21-0011	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW
POD Number: <i>GSE-4371-POD 12</i> MOG21-0012	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW
POD Number: <i>GSE-4371-POD 14</i> MOG21-0014	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW
POD Number: <i>GSE-4371-POD 15</i> MOG21-0015	X or Longitude 705028	Y or Latitude 3698476	Other Location Description: T10S R19W Section 27 SW
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:
POD Number:	X or Longitude	Y or Latitude	Other Location Description:

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
SEP 13 2021

FOR OSE INTERNAL USE

Form wr-08

POD DESCRIPTIONS - ATTACHMENT 1

File Number: <i>GSE-04731</i>	Trm Number: <i>709515</i>
Trans Description (optional): <i>EXPL</i>	

*EDW*





# NEW MEXICO OFFICE OF THE STATE ENGINEER



## ATTACHMENT to WD-08 Plan of Plugging MULTIPLE MONITORING WELL DESCRIPTIONS

This Attachment is to be completed if more than one (1) monitoring well is to be plugged using the same method.

Location (Required):									
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone		<input checked="" type="checkbox"/> UTM (NAD83) (Meters) <input type="checkbox"/> Zone 13N <input checked="" type="checkbox"/> Zone 12N		<input type="checkbox"/> Lat/Long (WGS84) (1/10 <sup>th</sup> of second)		OTHER (allowable only for move-from descriptions - see application form for format) <input checked="" type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant			
OSE POD Number:	Other Well ID:	X or Longitude (ddmmss):	Y or Latitude (ddmmss):	Other Location Info (PLSS):	Casing ID (inches):	Depth to Water (ft bgs):	Total well Depth (ft bgs):	Grout Volume:	Surface Casing (Y or N):
GSF-4731 POD 7	MOG21-0007	704960	3698417	T10S R19W Section 26 SE	2.50	unknown	1150	813.846	Y
GSF-4731 POD 8	MOG21-0008	704960	3698417	T10S R19W Section 26 SE	2.50	unknown	950	677.666	Y
GSF-4731 POD 1	MOG21-0001	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1450	1018.116	Y
GSF-4731 POD 2	MOG21-0002	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1300	915.981	Y
GSF-4731 POD 3	MOG21-0003	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1400	984.071	Y
GSF-4731 POD 4	MOG21-0004	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1500	1052.161	Y
GSF-4731 POD 11	MOG21-0011	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1550	1086.206	Y
GSF-4731 POD 12	MOG21-0012	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1600	1120.251	Y
GSF-4731 POD 14	MOG21-0014	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1750	1222.386	Y
GSF-4731 POD 15	MOG21-0015	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1750	1222.386	Y
GSF-4731 POD 5	MOG21-0005	705041	3698573	T10S R19W Section 27 SW	2.50	unknown	1500	1052.161	Y
GSF-4731 POD 6	MOG21-0006	705041	3698573	T10S R19W Section 27 SW	2.50	unknown	1100	779.801	Y

FOR OSE INTERNAL USE Multiple Monitoring POD Descriptions, Form wr-08m (Rev 7/31/19)

File Number: <b>GSF-04731</b>	Trn Number: <b>709515</b>
Trans Description (optional): <b>EXPL</b>	

STATE ENGINEERS OFFICE  
DEMING NEW MEXICO  
**JUN 28 2021**

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DEMING NEW MEXICO  
**SEP 13 2021**

*Jan*



# NEW MEXICO OFFICE OF THE STATE ENGINEER



## ATTACHMENT to WD-08 Plan of Plugging MULTIPLE MONITORING WELL DESCRIPTIONS

This Attachment is to be completed if more than one (1) monitoring well is to be plugged using the same method.

Location (Required):									
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone		<input checked="" type="checkbox"/> UTM (NAD83) (Meters) <input type="checkbox"/> Zone 13N <input checked="" type="checkbox"/> Zone 12N		<input type="checkbox"/> Lat/Long (WGS84) (1/10 <sup>th</sup> of second)		OTHER (allowable only for move-from descriptions - see application form for format) <input checked="" type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant			
OSE POD Number:	Other Well ID:	X or Longitude (ddmmss):	Y or Latitude (ddmmss):	Other Location Info (PLSS):	Casing ID (inches):	Depth to Water (ft bgs):	Total well Depth (ft bgs):	Grout Volume:	Surface Casing (Y or N):
GSE-4731 POD 9	MOG21-0009	705056	3698633	T10S R19W Section 27 SW	2.50	Unknown	1300	915.981	Y
GSE-4731 POD 16	MOG21-0016	705056	3698633	T10S R19W Section 27 SW	2.50	Unknown	1600	1120.251	Y
GSE-4731 POD 10	MOG21-0010	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1100	779.801	Y
GSE-4731 POD-17	MOG21-0017	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1450	1018.116	Y
GSE-4731 POD 19	MOG21-0019	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1250	881.936	Y
GSE-4731 POD 20	MOG21-0020	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1600	1120.251	Y
GSE-4731 POD 13	MOG21-0013	705008	3698714	T10S R19W Section 28 SE	2.50	Unknown	850	609.576	Y
GSE-4731 POD 18	MOG21-0018	705008	3698714	T10S R19W Section 28 SE	2.50	Unknown	800	575.531	Y

FOR OSE INTERNAL USE Multiple Monitoring POD Descriptions; Form wr-08m (Rev 7/31/19)

File Number: GSE-04731	Trn Number: 709515
Trans Description (optional): EXPL	

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JUN 28 2021

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DEANING NEW MEXICO  
SEP 1 2 2021

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**ATTACHMENT  
STATE ENGINEER CONDITIONS OF APPROVAL**

**FILE:** GSF-04731  
**APPLICATION:** GSF-04731 EXPL  
**PODS:** GSF-04731-POD1 through GSF-04731-POD20  
**APPLICANT:** Summa Silver Corporation

This application is approved provided it is not exercised to the impairment of any others having existing rights prior to this application for permit for exploratory well, further provided that all rules and regulations of the State Engineer pertaining to the drilling of shallow wells be complied with; and is not detrimental to the public welfare or contrary to the conservation of water within the state, subject to the following conditions:

1. Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978.
2. Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be drilled to depths as shown on "Attachment to WD-08 Plan of Plugging Multiple Monitoring Well Description" submitted with the application and as replicated in the worksheet below, as a part of this condition. No borehole shall exceed a maximum drill depth of 1,750.0 feet and shall be constructed with a borehole not to exceed 5 inch outside diameter. Should boreholes require drilling deeper than permitted, a revised application for approval shall be required and submitted and approved prior to proceeding with drilling operations.

POD Number	Client Identifier	Proposed Depth (FT)
GSF-04731-POD1	MOG21-0001	1450
GSF-04731-POD2	MOG21-0002	1300
GSF-04731-POD3	MOG21-0003	1400
GSF-04731-POD4	MOG21-0004	1500
GSF-04731-POD5	MOG21-0005	1500
GSF-04731-POD6	MOG21-0006	1100
GSF-04731-POD7	MOG21-0007	1150
GSF-04731-POD8	MOG21-0008	950
GSF-04731-POD9	MOG21-0009	1300
GSF-04731-POD10	MOG21-0010	1100
GSF-04731-POD11	MOG21-0011	1550
GSF-04731-POD12	MOG21-0012	1600
GSF-04731-POD13	MOG21-0013	850
GSF-04731-POD14	MOG21-0014	1750
GSF-04731-POD15	MOG21-0015	1750
GSF-04731-POD16	MOG21-0016	1600
GSF-04731-POD17	MOG21-0017	1450
GSF-04731-POD18	MOG21-0018	800
GSF-04731-POD19	MOG21-0019	1250
GSF-04731-POD20	MOG21-0020	1600

3. The well driller must file the well records with the State Engineer and the applicant within 30 days after the boreholes are drilled or driven. Test data shall be filed no later than twenty (20) days after completion of the test(s). It is the well owner's responsibility to ensure that the well driller files the well records. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website. Well Record shall indicate and provide the sub-surface level where groundwater is first encountered and shall provide the ending static water level of groundwater in the borehole. Well records shall be filed in the District 3 Office no later than October 31, 2022. Multiple

angled borings from the same entry borehole shall require separate well records and should be properly permitted as additional borings. Locations (with approximate Latitude and Longitude) of the boreholes to be drilled are:

POD Number	Latitude	Longitude	Quarter	Section	Township	Range
GSF-04731-POD1	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD2	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD3	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD4	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD5	33° 24' 24.76" North	108° 47' 42.36" West	SW¼	27	10 South	19 West
GSF-04731-POD6	33° 24' 24.76" North	108° 47' 42.36" West	SW¼	27	10 South	19 West
GSF-04731-POD7	33° 24' 19.71" North	108° 47' 45.64" West	SE¼	28	10 South	19 West
GSF-04731-POD8	33° 24' 19.71" North	108° 47' 45.64" West	SE¼	28	10 South	19 West
GSF-04731-POD9	33° 24' 26.65" North	108° 47' 41.56" West	SW¼	27	10 South	19 West
GSF-04731-POD10	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West
GSF-04731-POD11	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD12	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD13	33° 24' 29.53" North	108° 47' 43.56" West	SE¼	28	10 South	19 West
GSF-04731-POD14	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD15	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD16	33° 24' 26.65" North	108° 47' 41.56" West	SW¼	27	10 South	19 West
GSF-04731-POD17	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West
GSF-04731-POD18	33° 24' 29.53" North	108° 47' 43.56" West	SE¼	28	10 South	19 West
GSF-04731-POD19	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West
GSF-04731-POD20	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West

4. Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be plugged on or before October 31, 2022, unless the applicant has received an approved permit from the State Engineer for additional use or extension of time. Plugging Records for Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 itemizing actual abandonment process and materials used shall be filed with the District 3 Office of the State Engineer, 321 West Spruce Street, Deming, New Mexico 88030, within 30 days after completion of Borehole plugging and no later than October 31, 2022.
5. Plugging operations shall conform stringently to the conditions and descriptions as detailed below, and per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; 19.27.4.30.C., whichever is the more stringent. Adherence to specific Portland Cement, as approved in quantities and types, and maximum quantities of water in the proposed mix design shall be maintained without deviation to achieve the maximum sealant and plugging performance capabilities for the mix as detailed herein. Placement of all plugging components and sealants shall be done in strict compliance to these conditions and to meet or exceed New Mexico State Engineers' standards and regulations for plugging of wells, or as recommended by the New Mexico State Engineer.

Placement of all plugging components and sealants shall be done in strict compliance to the conditions herein and to mix designs as detailed herein. Sealant for boreholes shall be Portland neat cement, mixed according to manufacturer's recommendations and with a maximum of six (5.8) gallons of potable water per ninety-four (94.0) pound sack of Portland Cement, developing a slurry weight of approximately fifteen (15.0) pound per gallon, and a total volume of 8.8 gallons for the blended mix of one (1.0) each 94 pound sack of Portland Cement and 5.8 gallons of potable water. Neat Cement slurry (as detailed above) shall be placed the total depth from bottom of borehole to within two (2.0) feet of ground surface, followed by two (2.0) feet of topsoil/topdressing. Portland cement shall be Type I/II.

Placement of the sealant within the bore hole shall be by pumping through a tremie pipe or drill string extended to near hole bottom and kept below top of the slurry column as the hole is plugged from bottom-upwards in a manner that displaces the standing water column upwards from below. Tremie pipe or drill string may be pulled as necessary to retain minimal submergence in the advancing column of sealant.



Should Temporary Casing be used in the drilling of the borehole with intent to be extracted prior to or during plugging operations, prevention of deleterious fall-in, drainage, or drill cuttings into the annulus outside of the temporary casing shall be achieved by installation of an appropriate fluid-tight annular seal at ground surface at the beginning of drilling operations. The annular seal shall begin at ground surface and extend a minimum of twenty feet in depth below the surface of the ground. Upon casing extraction, provision shall be made for proper borehole clean-out prior to commencing plugging operations and placement of sealant.

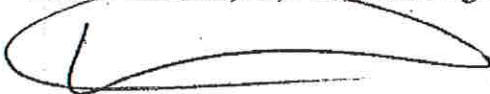
Should the MMD, New Mexico Environment Department, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein described, the more-stringent procedure shall be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process. Should a more stringent plugging requirement be required by other regulatory agency or agencies, then, the permittee will submit to the District 3 Office of the New Mexico State Engineer the revised requirements in writing and detail and obtain written approval to proceed from the District 3 Office of the New Mexico State Engineer prior to proceeding with plugging operations.

Office of the State Engineer witnessing of the plugging of non-artesian bore holes is not required. However, shall be facilitated upon request, or if onsite. Should **Artesian Conditions** be encountered resulting in free flow of water to the surface, or a **rise/increase in static water level from one geologic strata to another**, drilling will cease immediately, and the Water Rights Division of the District 3 Office of the New Mexico State Engineer in Deming, New Mexico shall be contacted. Drilling will remain inactive until a revised drilling plan is approved. Under Artesian conditions, drilling procedures shall be modified to adhere and comply with Artesian Well Requirements. A specific Artesian Conditions drilling plan and Plugging Plan of Operations shall be submitted and approved prior to continuation of drilling for each borehole that encounters artesian conditions. The plugging of artesian wells shall be witnessed by an authorized representative of the State Engineer.

6. The State Engineer retains jurisdiction to administer the conditions of this permit.
7. Pursuant to section 72-8-1 NMSA, the permittee shall allow the State Engineer and his representatives entry upon private property for the performance of their respective duties, including access to the well for meter reading and water level measurement.
8. This permit shall automatically expire on October 31, 2022.

Witness my hand and seal this 30th day of September 2021 .

John D'Antonio, Jr., P.E., State Engineer



Lloyd R. Valentine III  
District 3 Manager



March 3<sup>rd</sup>, 2021

Mr. John Mack  
9A Cherokee Sq.  
Wilkes-Barre, PA, 18702

RE. Lehigh Mining Claims

Dear Mr. Mack,

This letter confirms your approval for Summa Silver Corp. by way of an option agreement with Allegiant Gold Corp dated August 24<sup>th</sup>, 2020 ([www.SEDAR.com](http://www.SEDAR.com)) to use those patented mining claims (the Lehigh Patents; Socorro No. 1 etc.) subject to the Lease Consent Acknowledgement and Extension Agreement dated July 6, 2018 between yourself and partners and Allegiant Gold Corp to provide access for its exploration and development programs on your claims in the Mogollon district. Such approval covers, among other things, construction of permitted roads and drill pads. All such activities will follow Federal, state or county laws or regulations, including reclamation.

Your signature below will constitute approval as outlined above.

Sincerely,

Galen McNamara  
CEO Summa Silver Corp.

Approved this 4<sup>th</sup> day of March 2021.

  
John Mack

STATE ENGINEERS OFFICE  
DENVER NEW MEXICO  
SEP 13 2021

918 - 1030 WEST GEORGIA STREET, VANCOUVER, BC, V6E 2Y3

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**Permit No. CA027EM  
Summa Silver Mogollon  
Minimal Impact Exploration Operation**

**Mining and Minerals Division  
Energy, Minerals and Natural Resources Department**

Permit No. CA027EM ("Permit") is issued by the Director of the Mining and Minerals Division ("MMD") of the New Mexico Energy, Minerals and Natural Resources Department to:

Summa Silver Corp. ("Permittee")  
Whose correct address is: 918-1030 West Georgia Street  
Vancouver, BC V6E 2Y3

("Permittee") for the Summa Silver Mogollon Project located just west and north of the town of Mogollon, NM.

**Section 1. STATUTES AND REGULATIONS**

- A. This Permit is issued pursuant to the New Mexico Mining Act, NMSA 1978, §69-36-1, et seq. (1993, as amended through 2021).
- B. This Permit is subject to all applicable regulations of the New Mexico Mining Act ("Act"), New Mexico Mining Act Rules ("Rules" (§19.10.1 through §19.10.15 New Mexico Administrative Code ("NMAC"))) 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**

The minimal impact exploration Permit Application Package ("PAP") for Permit CA027EM was received on March 12, 2021 and deemed administratively complete on March 18, 2021. 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 titled *Summa Silver Mogollon CA027EM* or similar.

The PAP is comprised of the following documents:

- A. *Subpart 3 Minimal Impact Exploration Permit Application*, dated March 12, 2021 ("Application");
- B. *Summa Silver Corp.*, Responses to New Mexico State Agency Comments, received on June 29, 2021;
- C. MMD email dated July 2, 2021 deeming the application technically approvable.
- D. Standby Letter of Credit No. BMT0655124OS, issued by Bank of Montreal, 250 Yonge St., 11<sup>th</sup> Floor, Toronto, ON M5B 2L7, on August 13, 2021, in the amount of \$153,800.00.

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**Section 3.**            **PERMIT AREA**

- A.    The Permittee is authorized to conduct mineral exploration and reclamation operations only on those lands that are specifically designated and authorized within the permitted area ("Permit Area") and exploration activities shall be limited to the locations identified in the PAP. The Permit Area is located in Township 10 South, Range 19 West, Sections 27 and 28 on private land/patented mining claims.
- B.    For this Permit, the Permit Area is defined as:
1.    The roadway width of existing roads that do not require any modification or improvement;
  2.    10 feet on either side of existing roads that require modification or improvement;
  3.    10 feet on either side of the approximate centerline for new roads to be constructed for this project;
  4.    19 drill pad locations proposed in Section 3 of the PAP.
- C.    The Permittee is authorized to only disturb up to a maximum of 1.35 total acres within the Permit Area, pursuant to §19.10.3.302.A NMAC.

**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 1-6 of §19.10.3.302 NMAC.
- B.    The Director finds that the Permittee and cooperating state agencies have provided sufficient evidence to determine that the proposed operation meets the standards of a "Minimal impact mining operation," addressed in §19.10.1.7.M(2) NMAC, and in §19.10.3.302 NMAC, and does not fall within the exclusions in §19.10.1.7.M(2) NMAC. MMD and the other agencies reviewed the minimal impact designation:
1.    The Director finds that the project area is not located in or expected to have a direct surface impact on wetlands, springs, perennial or intermittent streams, lakes, rivers, reservoirs or riparian areas. (§19.10.1.7.M(2)(a) NMAC);
  2.    The Director finds that the project area is not located in designated critical habitat areas for the Mexican Spotted Owl or other federal endangered species. The Director finds

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that the project area is not located in an area determined by the Department of Game and Fish likely to result in an adverse impact on the Mexican Spotted Owl or any other endangered species. The Director finds that the project area is not located in an area with endangered plants. (§19.10.1.M(2)(b) NMAC);

3. The Director finds that the project area is not located in an area with cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties. (§19.10.1.7.M(2)(c) NMAC);
  4. The Director finds that the project is not expected to have a direct impact on ground water that has a total dissolved solids concentration of less than 10.000 mg/L (§19.10.1.7.M(2)(d) NMAC);
  5. The Director finds that the project is not using cyanide, mercury amalgam, heap leaching or dump leaching in its operations (§19.10.1.7.M(2)(e) NMAC);
  6. The Director finds that the project is not located in a known cemetery or other burial ground (§19.10.1.7.M(2)(f) NMAC);
  7. The Director finds that the project is not located in an area designated as a Federal Wilderness Area, Wilderness Study Area, Area of Critical Environmental Concern, or an area with the National Wild and Scenic River System (§19.10.1.7.M(2)(g) NMAC);
  8. The Director finds that the project is not expected to result in point or non-point source surface or subsurface releases of acid or other toxic substances from the permit area (§19.10.1.7.M(2)(h) NMAC);
  9. The Director finds that the project does not require a variance from any element of the Rules as part of the permit application (§19.10.1.7.M(2)(i) NMAC);
  10. The Director finds that none of the characteristics set forth in Subsection M, Paragraph 2, Subparagraphs a through d of 19.10.1.7 NMAC are present therefore no waivers of concurrence are necessary (19.10.1.7.M(2)(j) NMAC);
  11. The Director finds that the project is not located in close proximity to another interrelated mining operation (19.10.1.7.M(2)(k) NMAC);
- C. The Permittee has paid the initial permit application fee of \$500 as required by §19.10.2.201.F NMAC.
- D. The proposed operation and reclamation, as described in the PAP and this Permit, will meet the requirements of reclamation, as identified in §19.10.1.7.R(1) NMAC of the Rules. The reclamation plan, subject to the conditions in the Permit, demonstrates that the reclamation of the disturbed areas within the Permit Area will result in a condition that allows for the

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establishment of a self-sustaining ecosystem within the Permit Area that is appropriate for the life zone of the surrounding areas.

- E. The approved Post Exploration Land Use is designated as wildlife habitat.
- F. The term of the Permit is governed by Subsections A, C and D of §19.10.4.405 NMAC. The permit term shall be one year from the date of the Director's signature on this Permit.

*Right-To-Enter / Property Access Information*

- G. 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 the 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.
- H. The surface and mineral estate is owned, as stated in the PAP, by John Mack, Jr., Ann Hott and Mary K. Parker, 9A Cherokee Sq., Wilkes Barre, PA 18702 ("Landowner"). Attachment A of the PAP contains a lease agreement for the mine claims.
- I. The Permittee has satisfactorily demonstrated its right to enter pursuant to §19.10.304.D(1) NMAC.

*General Information Regarding the Permittee*

- J. The Permittee is not in violation of the terms of another permit issued by the Director or in violation of a substantial environmental law or substantive regulation at another mining operation, has not forfeited or had forfeited financial assurance in connection with another mining, reclamation or exploration permit, and has not demonstrated a pattern of willful violations of the Act, the Rules or other New Mexico environmental statutes.
- K. The Permittee has signed and certified a statement, provided within the PAP, that the Permittee agrees to comply with the requirements of this Permit, the Rules, and the Act, and allows the Director to enter the Permit Area for the purpose of conducting inspections.

*MMD's Request for Comments to the Agencies and Tribes*

- L. MMD provided the cooperating agencies (New Mexico Environment Department, Department of Game & Fish, State Forestry Division, State Historic Preservation Office, and the Office of the State Engineer) with a copy of the PAP pursuant to §19.10.3.302.G NMAC, and requested comments from the agencies.

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- M. MMD provided the PAP to the following tribal entities and requested review and comment: Hopi Tribe, Mescalero Apache Tribe, Pueblo of Isleta, Navajo Nation, Pueblo of Laguna, Pueblo of Acoma, White Mountain Apache Tribe, and Fort Sill Apache Tribe. Comments were received from Navajo Nation, White Mountain Apache Tribe, and Hopi Tribe.
- N. MMD provided the Permittee with comments provided by the cooperating agencies and tribal entities on April 28, 2021, via electronic mail.

*Financial Assurance*

- O. The Permittee has provided a MMD reclamation bond for surface and subsurface financial assurance ("FA"), in accordance with §19.10.12.1201.A NMAC, in the amount of \$153,800.00.

**Section 5. COMPLIANCE REQUIREMENTS**

- A. This Permit is issued pursuant to NMSA 1978, Section 69-36-1 et. seq. and Title 19, Chapter 10 NMAC. Permittee may be required to comply with other Federal, State, County or Local laws or ordinances before or while undertaking the activity that is the subject of this Permit. MMD does not, by issuing this Permit or otherwise, make any comment on Permittee's compliance with such other laws. It is Permittee's sole responsibility to investigate and comply with the requirements of such other laws.
- B. Since the Permit Area is on private land via mining claims, the expiration or termination of Landowner's authorization to conduct mining and exploration operations on the property automatically suspends the Permittee's authority to continue mining operations on the property. Such suspension does not include reclamation operations by this permit issued under §19.10.3 NMAC.
- C. The Permit does not grant or create any water rights. Nor does MMD, by issuing this Permit or otherwise, make any comment on the water rights that the Permittee may or may not have available for use in the area covered by the Permit. Permittee is solely responsible and obligated to comply with all state and federal laws related to water rights sufficient to support the activities contemplated by the Permit.

**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 mineral exploration or reclamation operation at any time, as provided for in §19.10.3.302.I(3) NMAC, for the purpose of conducting inspections during exploration, and reclamation, and to determine if the Permittee is in compliance with the permit requirements and conditions; and

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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 Landowner 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 shall 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 Landowner 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.

**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 noncompliance with any term or condition of the Permit, the Rules or the Act.

**Section 9. COMPLIANCE WITH THE PERMIT APPLICATION PACKAGE**

- A. The Permittee shall conduct mining, exploration drilling and reclamation operations only as described in the approved PAP and any other modifications approved by the Director, pursuant to §19.10.4.406 NMAC. The Permittee shall comply with any and all conditions that are incorporated in the PAP and 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. The Permittee is authorized to drill up to 50 boreholes on 19 drill pads using a mud/fluid rotary drilling method with a closed loop system. Each borehole shall be a maximum of 5 inches in nominal outside diameter and up to 2,000 feet depth each. Reclamation of the

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disturbed areas shall be initiated as soon as possible and completed in accordance with the schedule in this Permit.

- B. The Permittee is authorized to create no more than 19 drill pad surface disturbance areas, no greater than 50'W X 50'L to accommodate all support equipment, including the drill rig, pipe truck and any ancillary support vehicles. Permittee shall use a closed loop system in accordance with the PAP.
- C. The Permittee is authorized to disturb no more than 1.35 acres of total cumulative disturbance within the Permit Area as defined in §19.10.3.302.A NMAC.

*Bird Surveys to be Performed*

- D. In accordance with New Mexico Department of Game and Fish recommendations in a letter dated April 7, 2021, the project area shall be surveyed for active bird nest sites (with birds or eggs present in the nesting territory), and when occupied, nest disturbance shall be avoided until young have fledged. For active nests, adequate buffer zones shall be established to minimize disturbance to nesting birds. Buffer distances shall be at least 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 shall be mitigated by qualified biologists or wildlife rehabilitators in consultation with New Mexico Department of Game and Fish personnel.

*Mexican Spotted Owl Mitigations to be Performed*

- E. To minimize potential impacts to Mexican Spotted Owl, all drilling and disturbance activities should be performed outside of the breeding and fledgling-dependency period of March 1 through August 31 when possible. If drilling activities cannot be avoided during the breeding and fledgling-dependency period, spotted owl surveying shall be conducted within a 0.5-mile buffer zone prior to any road work, drill pad construction, and drilling. Surveys shall be conducted by qualified biologists using U.S. Fish and Wildlife Service Mexican Spotted Owl Survey Protocol (2012) and in accordance with New Mexico Department of Game and Fish recommendations. If an occupied breeding territory is located within the 0.5-mile buffer zone, drilling activities shall not occur until the young have fully fledged and dispersed from the area.

*Best Management Practices to be Performed*

- F. To the extent possible, Permittee shall avoid removing or damaging standing live or dead trees and woody vegetation during drill pad set-up and construction, as well as during mobilization of equipment into and out of the project area.
- G. Use of the roads and overland travel is prohibited within the Permit Area during wet, muddy conditions. No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If

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such equipment creates ruts in excess of six (6) inches deep, the soil shall be deemed too wet to adequately support construction equipment. Also, permittee shall use caution when driving hot vehicles over dry vegetated areas to prevent the ignition of a grass or brush fire.

- H. Permittee shall leave all disturbances in a manner that is stable, both long-term and short-term, and non-hazardous to humans and wildlife.
- I. The Permittee shall implement erosion-control measures, or Best Management Practices ("BMP's"), in a manner that prevents direct impacts to surface water and ephemeral watercourses that are designed, constructed and maintained using professionally recognized standards (e.g., Natural Resource Conservation Service Standards, or the BLM *Gold Book*) for surface disturbances during the exploration project and reclamation activities as needed for erosion control, spill prevention and the avoidance or damage to ephemeral watercourses in the area. Placement of water bar structures or other appropriate measures should be taken to reduce head-cutting adjacent to roads and to prevent roadways from channelizing surface flow.
- J. Erosion control measures or any other BMP's that are damaged or ineffective shall be repaired, replaced or redesigned, as necessary, within 24 hours, or as soon as reasonably possible, following discovery of damages. The Permittee shall commit to using a variety of erosion-control measures, as needed, if erosion control problems develop.
- K. A minimum setback of 100 feet away from any watercourse within the Permit Area is required. (*Watercourse means any channel having definable beds and banks capable of conducting generally confined runoff from adjacent lands. During floods water may leave the confining beds and banks but under normal flows water is confined within the channel. A watercourse may be perennial, intermittent, or ephemeral.*)
- L. No drilling and no storage of fuels or chemicals shall take place within any watercourse that is in the Permit Area. 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. A copy of such approval shall be provided to MMD when obtained.
- M. Appropriate spill clean-up materials, such as absorbent pads, shall be available on-site at all times during road construction, site preparations, and drilling activities to address potential spills. Drop cloths or plastic tarps will be placed and secured under rigs while drilling, in addition to any other immobilized, staged, or temporarily stored equipment parked for durations extending longer than 48 hours, to contain any spill or leakage from the drill rig and any other related equipment.
- N. The Permittee shall report all spills immediately to the New Mexico Environment Department ("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) 428-6000. For non-emergencies after hours, call (866) 428-6535

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or (505) 428-6535 (voicemail, 24 hrs. /day). For emergencies only, call (505) 827-9329 (24 hrs. /day) to contact the New Mexico Department of Public Safety.

- O. The Permittee shall comply with all requirements of federal and state laws pertaining to air quality requirements pursuant to §20.2.72 NMAC.
- P. Any water, drill cuttings, mud and drilling additives, and/or fluids produced from the exploration borehole shall be contained entirely within the Permit Area at all times. Mud pits, disposal pits, sumps, or above ground tanks shall be sized to contain the calculated volume of drill cuttings and all drilling fluids and any produced water, while still providing a substantial freeboard or emergency storage capacity.
- Q. Any overburden material generated during site grading and site preparation shall be utilized to create an earthen berm partially surrounding each drill pad to prevent any run-on or run-off from precipitation events flooding onto or escaping the drill pad site. The Permittee shall utilize BMP's, including above-ground tanks, to contain any water produced from the exploration holes at the drill sites.
- R. Discharge of any drilling fluids to the ground surface or to an ephemeral watercourse may be a violation of the Clean Water Act and is prohibited. All drilling cores and any excess drill cuttings shall be collected and disposed of properly.
- S. All heavy equipment to be used within the Permit Area shall be thoroughly pressure washed and/or steam cleaned prior to introducing any equipment into the Permit Area in order to help prevent the introduction of non-native species to the Permit Area. This cleaning shall remove all soil, seed, vegetative matter or other debris that could contain or hold seed or plant parts. Any heavy equipment that subsequently operates outside this Permit Area shall be treated the same as during the initial mobilization onto the Permit Area. Equipment shall be considered free of soil, seed and plant debris when a visual inspection does not detect such material.
- T. Any netting used for the preclusion of wildlife shall be constructed of a sturdy plastic or metal material and adequately supported so that it will not contact the liquid surface if sagging occurs. Monofilament mesh shall not be used, as it can entangle birds and reptiles causing mortalities. Any plastic or metal netting shall be anchored to the ground and maintained taut, and if the mesh size is greater than one inch, it shall be wrapped with an additional finer mesh material around the bottom (up to approximately 12 inches) to exclude reptiles and small mammals.
- U. The Permittee shall maintain current MSDS documentation for drilling additives, and any other chemicals to be used throughout the duration of the operation including exploration and reclamation activities and made available for review upon request.

*Cultural and Paleontological Resource Preservation Requirements*

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- V. The Permittee is obligated to comply with procedures established in Section 18-6-11.2 of the Cultural Properties Act, NMSA and §4.10.11 NMAC 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 shall immediately halt the disturbance and contact the Office of the Medical Investigator and the local law enforcement agency pursuant to Section 18-6-11.2 of the Cultural Properties Act and 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.

*Reclamation and Revegetation Requirements*

- W. The seed mix and application rate presented in Section 7 of the PAP shall be implemented and shall be certified as weed-free.
- X. Reclamation of disturbed areas shall occur concurrently, or directly after the completion of drilling operations as weather and field conditions allow. Pursuant to §19.10.3.302.K NMAC, all lands, including overland access routes or terrain damaged in gaining access to or clearing the drill sites, or lands where vegetation is substantially disturbed or whose natural state has been substantially disturbed as a result of the exploration drilling, shall be restored as nearly as possible to their original condition and reseeded and mulched utilizing an appropriately certified weed-free, pure live seed mixture of native cool- and warm-season grasses and shrubs beneficial to livestock and wildlife, as approved by MMD.
- Y. Any salvaged topsoil material that is suitable as a plant growth medium, shall be spread over the surface of the drill site, including any other heavily compacted areas, then raked, disked or deep-scarified prior to seeding, to prepare a suitable seedbed for seed germination and root growth. The seed mixture shall be broadcast sown immediately after site re-contouring and seedbed preparation has been completed and while the soil surface is still friable. After the seed mix has been sown, the soil shall be dragged with a chain or harrow or raked into the surface using hand tools, to cover the seed. Each reclaimed site shall be mulched with certified weed-free straw, or other mulching materials approved by MMD, and then crimped or tacked in place. Reclaimed areas not seeded before or during the summer, shall be seeded in late fall to maximize the probability of successful revegetation. Within any areas prohibitive to ripping or scarification, the seed shall be hand- or broadcast sown immediately after site re-contouring and seedbed preparation at an application rate double that of the rate prescribed, and then raked into the soil and mulched.
- Z. The Permittee shall notify MMD at least 30 days prior to initiating any reclamation approved pursuant to this Permit. The site will be considered reclaimed and eligible for release of FA, once the following criteria have been met:

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1. The Permittee has re-seeded areas of disturbance;
2. No significant erosion is evident on reclaimed areas;
3. All drill holes have been plugged and abandoned as described in this Permit.

Release of FA addressing plugging and abandonment costs may occur before expiration of the permit term, once the criteria above have been met. Final release of FA addressing surface reclamation may occur after the permit term, if all the release criteria have not previously been met.

- AA. All lands to be disturbed shall be addressed under the performance and reclamation standards and requirements of §19.10.3.302 NMAC and in accordance with the reclamation plan provided in the PAP and this Permit. The Permittee is obligated to complete reclamation of all disturbed areas upon completion of exploration activities.

*Borehole and/or Well Abandonment*

- BB. Pursuant to §19.10.3.302.L NMAC, each dry borehole shall be plugged from total depth with a column of high-density bentonite clay of sufficient composition, density, weight and viscosity to form an impermeable plug, unless another material is approved by the New Mexico Office of the State Engineer ("NMOSE"). The high-density bentonite shall be hydrated according to the manufacturer's requirements, and emplaced from the bottom upwards, to approximately 12 feet of the original ground surface. A 10-foot column of cement shall then be added to within approximately 2 feet of the ground surface. The cement shall be hydrated according to the manufacturer's requirements. The remaining hole shall be backfilled with topdressing from above the cement plug to the original ground surface. The hole shall be permanently plugged and abandoned as soon as is practical after drilling is complete. If a water-bearing stratum is encountered, the borehole shall be plugged before the drill rig is removed from the site and must satisfy the requirements of the NMOSE and the NMED for proper plugging of such holes.

If groundwater is encountered, the boreholes shall be considered wells and shall be permitted and sealed pursuant to the NMOSE's *Rules and Regulations Governing Well Driller Licensing, Construction, Repair, and Plugging of Wells*, §19.27.4 NMAC (see §19.27.4.36, *Requirements for Mine Drill Holes that Encounter Water*). An NMOSE-approved *Well Plugging Plan of Operations* shall be provided to MMD following the approval of this Permit or within 30 days after groundwater was inadvertently or unexpectedly encountered during drilling activities. The approved sealant shall comply with all applicable specifications of *ASTM D5299-99*. Because of the anticipated hard water conditions concerning the permit area, the permittee is required to use the proper plugging material appropriate for the hardness of water encountered. The Permittee shall ensure that the correct ratio of solids to water is used during the preparation of the approved

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sealant. Well plugging records shall be sufficiently detailed to document plugging methodology, the proper constitution of approved sealant, and an adequate volume of sealant was used to meet theoretical volumes of plugged intervals shall be provided to NMOSE and copied to MMD. Additionally, the Permittee is required to consult with OSE personnel prior to plugging wet boreholes.

All required NMOSE Permits for this project shall be obtained prior to starting the exploration project.

*Changes, Modifications, or Revisions to the Permit*

CC. Any changes, modifications or amendments to the approved Permit shall be approved prior to implementation pursuant to §19.10.3.302.J and §19.10.4.406 NMAC.

*Financial Assurance*

DD. The Permittee shall maintain FA, after approval of this Permit, in the approved amount of \$153,800.00, using one or more approved FA instruments and until released, pursuant to Part 12 of the Rules and sufficient to cover third-party costs of sealing, subsurface plugging and surface reclamation of no more than five (5) boreholes at any given time and one drill pad to be completed and reclaimed.

*Project Completion Timeline/Termination Report Requirements*

EE. Notwithstanding any other provision of this Permit, the Permittee shall close and abandon all exploratory boreholes, including all wells, within one (1) year of date of permit issuance.

FF. The Permittee shall submit a termination report, pursuant to §19.10.4.407 NMAC, at the conclusion of the exploration operation, unless the Permittee has applied for renewal of the exploration permit or applied for a mining operation permit. The termination report shall contain, at a minimum:

1. A description of the reclamation measures utilized by the Permittee.
2. Evidence of the seed mix (seed tags from bags) and its application rate utilized by the Permittee.
3. Photographs of the reclaimed areas, including any BMP's utilized by the Permittee during exploration.
4. Global positioning system (GPS) coordinates for the drill pads, drill holes and/or well locations drilled under this Permit.

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5. Copies of the drill hole abandonment and plugging records and forms that includes an affidavit signed by a certified driller, engineer, or the project geologist, attesting to the fact that the holes have been plugged and abandoned according to the requirements of this permit.

**Section 11. CONCLUSIONS OF LAW**

- A. The Director concludes the project meets the requirements of a "Minimal Impact Mining Operation" addressed in §19.10.1.7.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 exploration operation, pursuant to §19.10.1.7.M(2) NMAC and §19.10.3.302.A NMAC.
- B. The PAP is complete, accurate and complies with the requirements of the Act and §19.10.3.302 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 exploration and reclamation operations within the Permit Area upon the condition that the Permittee complies with the requirements of the Rules, Act, and this Permit, and upon the submission of such termination reports and fees as may be required under §19.10.3 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.

Christi York  
Authorized Representative of the Permittee

VP Exploration  
Title

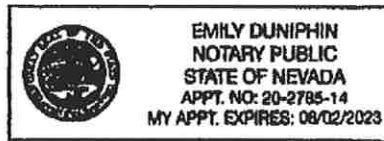
Summa Silver  
Company Name

Subscribed and sworn to before me this 1 day of Sept, 2019  
2021

Emily Duniphin  
Notary Public

My Commission Expires

0802, 2023



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**ORDER**

NOW THEREFORE, IT IS HEREBY ORDERED that Permit No. CA027EM is approved. Summa Silver Corp. is authorized to conduct mining, exploration drilling and reclamation operations at the Summa Silver Mogollon project in Catron County, New Mexico. The Permit may not be transferred without approval by the Director. The Permit is subject to all conditions set out in the Director's Findings of Fact, Conditions and Conclusions of Law.

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

By:

  
\_\_\_\_\_  
Jerry Schoeppner, Director  
Mining and Minerals Division  
Energy, Minerals and Natural Resources Department

Date: 9/8/2021

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
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G-SF-4371



From: Chris York [cyork@summasilver.com](mailto:cyork@summasilver.com)

To: New Mexico Office of the State Engineer

Cover Letter for Forms WR-07 and WD-08

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To Whom it may Concern:

Summa Silver is in the process of applying for a permit with the New Mexico Mining and Minerals Division (MMD) to perform gold and silver exploration drilling on the Mogollon project (Permit No. CA27EM). Forms WR-07 and WD-08 are included for the approval to drill a well and a well plugging plan of operations.

The proposal is currently for 20 holes to be drilled in 2021. If additional holes are needed additional forms will be completed. All holes will be abandoned upon completion of the hole following the guidelines set forth from the "Office of the State Engineer Sealant Guidelines for Well Construction and Plugging" report. Baroid Bore-Grout will be used with a tremie pipe from the bottom of the hole out for the abandonment with a minimum 10 foot cement grout plug installed. If artesian conditions are encountered the Office of the State Engineer will be notified and an abandonment plan will be submitted for approval.

Included in the packet are the following:

- Form WR-07 – Application for Permit to Drill a Well with No Water Right
- 2 Forms of WR-08 Additional hole coordinates for form WR-07
- Form WR-08 – Well Plugging Plan of Operations
- 2 Forms of WD-08m – Attachment to WD-08 Plan of Plugging for Multiple Monitoring Well Descriptions
- Table with all hole coordinates with planned footages and abandonment volumes using Baroid's product guidelines
- Generalized abandonment procedure/volumes for Bore-Grout and Cement

If any additional information is needed or if there are any other question, please contact me via cell and/or email. Electronic copies of all forms and tables can also be sent.

Best regards,

Chris York  
Exploration Manager  
Summa Silver  
Cell: 618-263-8664  
Email: [cyork@summasilver.com](mailto:cyork@summasilver.com)



STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
JUN 28 2021

STATE ENGINEERS OFFICE  
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**MEMORANDUM**  
**OFFICE OF THE STATE ENGINEER**  
***Hydrology Bureau***

DATE: April 5, 2021

TO: David J. Ennis, Permit Lead, Mining Act Reclamation Program ("MARF")/MMD

THROUGH: Ghassan Musharrafiéh, Ph.D., P.E., Hydrology Bureau Chief *GEM*

FROM: Kamran H. Syed, Ph.D., P.E., Hydrology Bureau *KHS*

SUBJECT: Hydrology Review and Comments, Summa Silver Mogollon Minimal Impact Exploration, Catron County, New Mexico, Permit No. CA027EM

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**I. Introduction and Conclusions**

On March 18, 2021, the State of New Mexico Energy, Minerals and Natural Resources Department (EMNRD) requested the New Mexico Office of the State Engineer (NMOSE) Hydrology Bureau to review and comment on the MMD CA027EM Part 3 Minimal Impact Exploration Operation Permit Application for the Summa Silver Corp. for a minimal impact exploration project north of Mogollon, New Mexico ("Project"). The project consists of the drilling and evaluation of 50 boreholes, 600 to 2000 feet deep (4-5 inch diameter), exploring for precious metals (gold and silver). The boreholes will be drilled at 19 drill sites (50 feet x 50 feet drill pads).

The locations of the proposed boreholes are within Sections 27 and 28 of Township 10 South, Range 19 West. The project location is just north of the town of Mogollon, New Mexico, and approximately 7 miles east of the town of Alma, NM in Catron County. The surface elevations at the locations of the proposed boreholes range from approximately 6900 to 7100 feet above mean sea level (amsl).

**Comment Summary**

1. Groundwater
  - a. Based on the proposed borehole depths, it is most likely that groundwater will be encountered, either in borings through the alluvium of Mineral Creek/Silver Creek or tributary washes. Groundwater encountered through proposed maximum exploration depth of 2,000 feet in the crystalline rock may be under artesian conditions and/or require competent segregation from shallow groundwater sources when the borings are decommissioned, which would require additional administrative filings with the NMOSE through our District 3 Office.
  - b. In the unlikely event that no water is encountered MMD regulations (19.10.3 NMAC) will prevail, and NMOSE regulations (19.27.4 NMAC) would not apply.

- c. The application does not state whether the completed forms WR-07 (Application for permit to drill a well with no consumptive use of water) and WD-08 (Well plugging plan of operations) have been filed with the District Office of the State Engineer. It is stated in the application that copies of these forms will be provided when the driller is selected.

## 2. Borehole Abandonment

- a. In the unlikely event that the groundwater is not encountered MMD regulations for plugging (Subsection L of 19.10.302 NMAC) will prevail over NMOSE regulations for plugging (Subsection C of 19.27.4.30 NMAC)
- b. If water is encountered NMOSE well plugging regulations (Subsection C of 19.27.4.30 NMAC for non-artesian conditions; Subsection K of 19.27.4.31 NMAC for artesian conditions) should be followed.

## II. Surface water

USGS 7.5-minute Topo map (Mogollon Quadrangle) and GIS data from NMOSE Geographic Information System database were used to locate surface water bodies in the vicinity of the proposed drill sites. The project site is approximately 1 mile west of Mineral Creek. Several area springs and ephemeral drainages are located in the vicinity of the proposed drill sites (Silver Creek, Deadwood Gulch etc.). In the NMOSE GIS Hydrographic Database, Mineral Creek is designated as a perennial stream.

It is recommended to avoid drilling in or within 100 feet of any streams and drainages. Subsection F of Section 6-*Groundwater/Surface Water Information* (page 16) of the MMD's "Part 3 Minimal Impact Exploration Operation PERMIT APPLICATION INSTRUCTIONS" (2012), suggests that drilling in or near water courses even if it is dry for most of the year is not preferred and will likely result in some drilling restrictions by the MMD. NMOSE regulation 19.27.4.29.P.(2)NMAC notes that drilling fluids and cuttings shall not be allowed to migrate or be discharged off property under the control of the well owner, and that no drilling fluid or cuttings be discharged into any waters of the State.

## III. Groundwater

Using the New Mexico Water Right Reporting System (NMWRRS), 34 wells were identified within approximately 1 mile of the proposed project area. Out of those 34 wells, nine wells have well depth information and five wells have both well depth and depth to water (DTW) information. The well depths range from a minimum of 12 feet to a maximum of 200 feet. The DTW values range from a minimum of 6 feet to a maximum of 70 feet. Details are provided in the following table.



NMOSE POD Number	UTM Easting, m	UTM Northing, m	Approximate distance from the centroid of proposed wells, feet	Depth of Well, feet	Depth To Water, feet
GSF 01031	146731	3701930	3214	45	6
GSF 01044	146731	3701930	3214	18	
GSF 01045	146731	3701930	3214	12	
GSF 01047	146731	3701930	3214	25	
GSF 03580	146860	3701869	3342	123	21
GSF 01297	146830	3701829	3483	14	
GSF 03375	146998	3701810	3523	200	70
GSF 03797	146998	3701810	3523	104	12
GSF 02418	146630	3701829	3624	100	12

The project boreholes are proposed to be drilled to a maximum depth of 2000 feet. Given water level information from NMWRRS, presented above, it seems very likely that the proposed boreholes will encounter groundwater.

Since it is likely that groundwater will be encountered, the NMOSE requirements for the drilling and plugging of the proposed boreholes should be observed and met. *Application for Permit to Drill a Well with No Water Right* (NMOSE Form WR-07) for the proposed boreholes (that encounter water) would be required (The NMOSE District 3 Office may require additional filings such as an *Artesian Well Plan of Operations* if artesian conditions are encountered). The NMOSE regulation 19.27.4 also requires among other things, that the borehole be drilled by a New Mexico-licensed well driller.

#### **IV. Exploratory borehole abandonment**

MMD regulations (19.10.3 NMAC) prevail over those of NMOSE (19.27.4 NMAC) if groundwater is *not* encountered during exploratory drilling (this scenario is highly un-likely for the proposed borehole depth of 2000 feet as stated earlier). For exploratory borings that do not encounter a water-bearing stratum, MMD plugging regulation Subsection L of NMAC 19.10.3.302 addresses MMD-preferred plugging alternatives. In the event that drilling does encounter groundwater (a highly likely scenario for the proposed boreholes under this application), pluggings should be according to either a pre-approved "*plugging conditions*" attached to the NMOSE drilling permits, or can be separately conditioned by a *Well Plugging Plan of Operations*, as dictated by NMOSE Water Rights District 3 (Deming Office). Additional details regarding well plugging requirements under 19.27.4 NMAC are included in the attached document ("*General Concerns Related to NMOSE Regulation of Exploratory Borehole Drilling Encountering Groundwater and Associated Plugging of those Borings*").

It is not clear whether a plugging plan has been provided to the NMOSE District 3 (Deming) Office. However, in the permit application, two of the options for abandonment of wet boreholes are selected. Wet boreholes will be decommissioned with a high-density bentonite (with a limited upper interval of cement) or net cement slurry. NMOSE regulation (19.27.4 NMAC) addresses

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requirements for well's decommissioning and should be met if applicable. If the borehole is not flowing, a high-solids bentonite grout is an acceptable sealant **IF** water chemistry does not preclude its use - Chloride concentration in excess of 1500 mg/l or total hardness in excess of 500 mg/l are derogatory to bentonite sealant use, and bentonite sealant should not be used in this case. Refer to the NMOSE guidelines for well construction and plugging:

<https://www.ose.state.nm.us/Statewide/Guidelines/SealantTableSigned.pdf>, as well.

### **V. References**

Mining and Minerals Division, 2011, Guidance Document for Part 3 Permitting Under the New Mexico Mining Act. Energy, Minerals and Natural Resources Department, Mining Act Reclamation Program October 2011.

[http://www.emnrd.state.nm.us/MMD/MARP/Documents/Part\\_3\\_Guidelines\\_October2011\\_.pdf](http://www.emnrd.state.nm.us/MMD/MARP/Documents/Part_3_Guidelines_October2011_.pdf)

Mining and Minerals Division, 2012, Part 3 Minimal Impact Exploration Operation: PERMIT APPLICATION INSTRUCTIONS. Energy, Minerals and Natural Resources Department.  
[http://www.emnrd.state.nm.us/MMD/MARP/Documents/Part3\\_ExplorationApplication\\_Instructions\\_Feb2012.pdf](http://www.emnrd.state.nm.us/MMD/MARP/Documents/Part3_ExplorationApplication_Instructions_Feb2012.pdf)

New Mexico Office of the State Engineer and New Mexico State Engineer and Interstate Stream Commission. New Mexico Water Rights Reporting System (NMWRRS).  
URL: <http://nmwrrs.ose.state.nm.us/nmwrrs/index.html>



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

Well drilling activities (including mineral exploration borehole drilling ("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). Most recently promulgated in 6/30/2017, these regulations require 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.

Exploration drilling where any form of groundwater is encountered will be subject to pertinent sections of 19.27.4 NMAC, including but not limited to Sections 19.27.4.30.C NMAC for plugging and abandonment of non artesian wells / borings; 19.27.4.31 NMAC for artesian wells / borings; 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://164.64.110.134/parts/title19/19.027.0004.html> . The Mining and Mineral Division (MMD) will likely place additional conditions on the drilling and plugging of all mineral exploration borings via the MMD project permit.

All onsite drilling and plugging activities where groundwater is encountered 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.

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.**

### **Use/extraction of Temporary Casing**

When drilling through overburden or caving, poorly-consolidated, or karst geologic units, use of temporary casing may be desired. Any temporary casing should be installed with the full intention of its removal before borehole plugging, therefore temporary casing should be inserted into a borehole of sufficiently large diameter to allow easy extraction upon termination of drilling. NMAC 19.27.4 regulations dictate methodology for the installation of permanent well casing, including the installation of required annular seal, should that option be more prudent.

If temporary casing lacking a rule-compliant annular seal or casing grade becomes stuck in-place downhole, the potential for permanent commingling of aquifers or downhole surface water drainage may occur via an unsealed annulus. In these cases, staged casing cutting and extraction, or remedial casing perforation and squeeze-cementing will be required to the satisfaction of the State Engineer as part of final well decommissioning. Steps should be taken during drilling to prevent deleterious fall-in or drainage of cuttings/sediments into the annulus outside the temporary casing to best allow for full retrieval and proper borehole plugging.



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* form. If exploratory drilling through stratified or artesian aquifer systems, filing a NMOSE *Artesian Well Plan of Operations* may be required to preemptively assess and address NMOSE concerns regarding best borehole decommissioning practices.

### **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. NMOSE-authorized cement slurries will be required for the decommissioning of flowing artesian boreholes. 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. By regulation, pumping decommissioning sealants into the top of the borehole is not allowed. The NMOSE defers to the discretion of the MMD for the choice of sealant versus natural fill in the uppermost portion 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 to 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. Drill rigs often remain 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  
OFFICE OF THE STATE ENGINEER

District 3 Office, Deming, NM

John D'Antonio, Jr., P.E.  
State Engineer

321 WEST SPRUCE STREET  
DEMING, NEW MEXICO 88030  
PHONE: (575) 546-2851  
FAX: (575) 546-2290

September 30, 2021

FILE: GSF-04731

Summa Silver Corporation  
c/o Chris York  
2552 Hamilton Creek Trail  
Elko, NV 89801

Greetings:

Enclosed is your copy of Exploratory Boreholes Permit for GSF-04731-POD1 through GSF-04731-POD20, which has been approved.

Your attention is called to the Conditions of Approval under exploratory permit GSF-04731-POD1 through GSF-04731-POD20, which states as follows:

This application is approved provided it is not exercised to the impairment of any others having existing rights prior to this application for permit for exploratory well, further provided that all rules and regulations of the State Engineer pertaining to the drilling of shallow wells be complied with; and is not detrimental to the public welfare or contrary to the conservation of water within the state, subject to the following conditions:

1. Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978.
2. Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be drilled to depths as shown on "Attachment to WD-08 Plan of Plugging Multiple Monitoring Well Description" submitted with the application and as replicated in the worksheet below, as a part of this condition. No borehole shall exceed a maximum drill depth of 1,750.0 feet and shall be constructed with a borehole not to exceed 5 inch outside diameter. Should boreholes require drilling deeper than permitted, a revised application for approval shall be required and submitted and approved prior to proceeding with drilling operations.

POD Number	Client Identifier	Proposed Depth (FT)
GSF-04731-POD1	MOG21-0001	1450
GSF-04731-POD2	MOG21-0002	1300
GSF-04731-POD3	MOG21-0003	1400
GSF-04731-POD4	MOG21-0004	1500
GSF-04731-POD5	MOG21-0005	1500
GSF-04731-POD6	MOG21-0006	1100
GSF-04731-POD7	MOG21-0007	1150
GSF-04731-POD8	MOG21-0008	950
GSF-04731-POD9	MOG21-0009	1300

GSF-04731-POD10	MOG21-00010	1100
GSF-04731-POD11	MOG21-00011	1550
GSF-04731-POD12	MOG21-00012	1600
GSF-04731-POD13	MOG21-00013	850
GSF-04731-POD14	MOG21-00014	1750
GSF-04731-POD15	MOG21-00015	1750
GSF-04731-POD16	MOG21-00016	1600
GSF-04731-POD17	MOG21-00017	1450
GSF-04731-POD18	MOG21-00018	800
GSF-04731-POD19	MOG21-00019	1250
GSF-04731-POD20	MOG21-00020	1600

3. The well driller must file the well records with the State Engineer and the applicant within 30 days after the boreholes are drilled or driven. Test data shall be filed no later than twenty (20) days after completion of the test(s). It is the well owner's responsibility to ensure that the well driller files the well records. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website. Well Record shall indicate and provide the sub-surface level where groundwater is first encountered and shall provide the ending static water level of groundwater in the borehole. Well records shall be filed in the District 3 Office no later than October 31, 2022. Multiple angled borings from the same entry borehole shall require separate well records and should be properly permitted as additional borings. Locations (with approximate Latitude and Longitude) of the boreholes to be drilled are:

POD Number	Latitude	Longitude	Quarter	Section	Township	Range
GSF-04731-POD1	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD2	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD3	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD4	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD5	33° 24' 24.76" North	108° 47' 42.36" West	SW¼	27	10 South	19 West
GSF-04731-POD6	33° 24' 24.76" North	108° 47' 42.36" West	SW¼	27	10 South	19 West
GSF-04731-POD7	33° 24' 19.71" North	108° 47' 45.64" West	SE¼	28	10 South	19 West
GSF-04731-POD8	33° 24' 19.71" North	108° 47' 45.64" West	SE¼	28	10 South	19 West
GSF-04731-POD9	33° 24' 26.65" North	108° 47' 41.56" West	SW¼	27	10 South	19 West
GSF-04731-POD10	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West
GSF-04731-POD11	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD12	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD13	33° 24' 29.53" North	108° 47' 43.56" West	SE¼	28	10 South	19 West
GSF-04731-POD14	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD15	33° 24' 21.79" North	108° 47' 42.98" West	SW¼	27	10 South	19 West
GSF-04731-POD16	33° 24' 26.65" North	108° 47' 41.56" West	SW¼	27	10 South	19 West
GSF-04731-POD17	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West
GSF-04731-POD18	33° 24' 29.53" North	108° 47' 43.56" West	SE¼	28	10 South	19 West
GSF-04731-POD19	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West
GSF-04731-POD20	33° 24' 29.66" North	108° 47' 40.97" West	SW¼	27	10 South	19 West

4. Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be plugged on or before October 31, 2022, unless the applicant has received an approved permit from the State Engineer for additional use or extension of time. Plugging Records for Exploratory Boreholes GSF-04731-POD1 through GSF-04731-POD20 itemizing actual abandonment process and materials used shall be filed with the District 3 Office of the State Engineer, 321 West Spruce Street, Deming, New Mexico 88030, within 30 days after completion of Borehole plugging and no later than October 31, 2022.
5. Plugging operations shall conform stringently to the conditions and descriptions as detailed below, and per Rules and Regulations Governing Well Driller Licensing, Construction, Repair



and Plugging of Wells; 19.27.4.30.C., whichever is the more stringent. Adherence to specific Portland Cement, as approved in quantities and types, and maximum quantities of water in the proposed mix design shall be maintained without deviation to achieve the maximum sealant and plugging performance capabilities for the mix as detailed herein. Placement of all plugging components and sealants shall be done in strict compliance to these conditions and to meet or exceed New Mexico State Engineers' standards and regulations for plugging of wells, or as recommended by the New Mexico State Engineer.

Placement of all plugging components and sealants shall be done in strict compliance to the conditions herein and to mix designs as detailed herein. Sealant for boreholes shall be Portland neat cement, mixed according to manufacturer's recommendations and with a maximum of six (5.8) gallons of potable water per ninety-four (94.0) pound sack of Portland Cement, developing a slurry weight of approximately fifteen (15.0) pound per gallon, and a total volume of 8.8 gallons for the blended mix of one (1.0) each 94 pound sack of Portland Cement and 5.8 gallons of potable water. Neat Cement slurry (as detailed above) shall be placed the total depth from bottom of borehole to within two (2.0) feet of ground surface, followed by two (2.0) feet of topsoil/topdressing. Portland cement shall be Type I/II.

Placement of the sealant within the bore hole shall be by pumping through a tremie pipe or drill string extended to near hole bottom and kept below top of the slurry column as the hole is plugged from bottom-upwards in a manner that displaces the standing water column upwards from below. Tremie pipe or drill string may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

Should Temporary Casing be used in the drilling of the borehole with intent to be extracted prior to or during plugging operations, prevention of deleterious fall-in, drainage, or drill cuttings into the annulus outside of the temporary casing shall be achieved by installation of an appropriate fluid-tight annular seal at ground surface at the beginning of drilling operations. The annular seal shall begin at ground surface and extend a minimum of twenty feet in depth below the surface of the ground. Upon casing extraction, provision shall be made for proper borehole clean-out prior to commencing plugging operations and placement of sealant.

Should the MMD, New Mexico Environment Department, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein described, the more-stringent procedure shall be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process. Should a more stringent plugging requirement be required by other regulatory agency or agencies, then, the permittee will submit to the District 3 Office of the New Mexico State Engineer the revised requirements in writing and detail and obtain written approval to proceed from the District 3 Office of the New Mexico State Engineer prior to proceeding with plugging operations.

Office of the State Engineer witnessing of the plugging of non-artesian bore holes is not required. However, shall be facilitated upon request, or if onsite. Should **Artesian Conditions** be encountered resulting in free flow of water to the surface, or a **rise/increase in static water level from one geologic strata to another**, drilling will cease immediately, and the Water Rights Division of the District 3 Office of the New Mexico State Engineer in Deming, New Mexico shall be contacted. Drilling will remain inactive until a revised drilling plan is approved. Under Artesian conditions, drilling procedures shall be modified to adhere and comply with Artesian Well Requirements. A specific Artesian Conditions drilling plan and Plugging Plan of Operations shall be submitted and approved prior to continuation of drilling for each borehole

that encounters artesian conditions. The plugging of artesian wells shall be witnessed by an authorized representative of the State Engineer.

6. The State Engineer retains jurisdiction to administer the conditions of this permit.
7. Pursuant to section 72-8-1 NMSA, the permittee shall allow the State Engineer and his representatives entry upon private property for the performance of their respective duties, including access to the well for meter reading and water level measurement.
8. This permit shall automatically expire on October 31, 2022.

Sincerely,

Lloyd R. Valentine III  
District 3 Manager

By:   
Eric R. Woodhouse CPESC  
Water Resource Professional III  
District 3 Office of the New Mexico State Engineer

ERW:erw







# WELL PLUGGING PLAN OF OPERATIONS



STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
JUN 28 2021

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology [geoinfo.nmt.edu/resources/water/cgmn/](http://geoinfo.nmt.edu/resources/water/cgmn/) if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email [nmbg-waterlevels@nmt.edu](mailto:nmbg-waterlevels@nmt.edu), prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

**I. FILING FEE:** There is no filing fee for this form.

**II. GENERAL / WELL OWNERSHIP:**  Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: G5F-4731-POD 1 Thru POD 20  
Name of well owner: Summa Silver  
Mailing address: 2552 Hamilton Creek Trail County: Elko  
City: Elko State: NV Zip code: 89801  
Phone number: 618-263-8664 E-mail: cyork@summasilver.com

POD 20  
- EPN  
DB OSE

### III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Godbe Drilling  
New Mexico Well Driller License No.: WD-1677 Expiration Date: 12/31/21

**IV. WELL INFORMATION:**  Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: see attached multiple Monitoring Well Descriptions deg,      min,      sec  
Longitude:      deg,      min,      sec, NAD 83

- EPN  
DB OSE

2) Reason(s) for plugging well(s):

Wells will be plugged on completion of the hole for mineral exploration. All drill steel and casing is planned for removal.

3) Was well used for any type of monitoring program? No If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? Unknown If yes, provide additional detail, including analytical results and/or laboratory report(s):     

5) Static water level: 6-70 feet below land surface feet above land surface (circle one)

6) Depth of the well: Variable feet

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DEMING, NEW MEXICO  
WD-08 Well Plugging Plan  
Version: July 31, 2019  
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JUN 28 2021

- 7) Inside diameter of innermost casing: 2.50 inches.
- 8) Casing material: Drill steel
- 9) The well was constructed with:
  - an open-hole production interval, state the open interval: N/A
  - a well screen or perforated pipe, state the screened interval(s): N/A
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
- 11) Was the well built with surface casing? Yes If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? No If yes, please describe:
- 12) Has all pumping equipment and associated piping been removed from the well? Yes If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

**V. DESCRIPTION OF PLANNED WELL PLUGGING:**  If plugging method differs between multiple wells on same site, a separate form must be completed for each method.

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

- 1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well: Neat Cement - GRW D30SE

Non-artesian holes will be filled with ~~Bore Grout (Baroid)~~ from bottom to top with a tremie pipe. A ten foot minimum grout cap will be emplaced at the top of the hole. If holes are artesian, they will be filled from bottom to top with a neat cement mix with tremie pipe upon approval of the Office of the State Engineer.

- 2) Will well head be cut-off below land surface after plugging? Surface casing will be removed

**VI. PLUGGING AND SEALING MATERIALS:**

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

- 1) For plugging intervals that employ cement grout, complete and attach Table A.
- 2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
- 3) Theoretical volume of grout required to plug the well to land surface: See attached forms WD-08M
- 4) Type of Cement proposed: ~~Bore Grout~~ or Portland Cement
- 5) Proposed cement grout mix: 5.8 gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be:        batch-mixed and delivered to the site  
  X   mixed on site

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7) Grout additives requested, and percent by dry weight relative to cement:

None

8) Additional notes and calculations:

Please see attached sheets from Baroid with Hole volumes and mixes

**VII. ADDITIONAL INFORMATION:** List additional information below, or on separate sheet(s):

Grout volume was estimated by multiplying the hole volume by 1.1 for 100% return. If there is no return the estimated volume will be multiplied by 1.5 - 2.

**VIII. SIGNATURE:**

I, Chris York, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Chris York  
Signature of Applicant

6/22/2021  
Date

**IX. ACTION OF THE STATE ENGINEER:**

This Well Plugging Plan of Operations is:

Approved subject to the attached conditions.  
 Not approved for the reasons provided on the attached letter.

SEP 13 2021

Witness my hand and official seal this 30th day of September, 2021

John R. D'Antonio Jr. P.E., New Mexico State Engineer

By: [Signature]

*EW*

GSF-4731



**TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.**

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)	Please see attached sheets for hole volumes		
Bottom of proposed interval of grout placement (ft bgl)			
Theoretical volume of grout required per interval (gallons)			
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			
Mixed on-site or batch-mixed and delivered?			
Grout additive 1 requested			STATE ENGINEERS OFFICE DEMING, NEW MEXICO JUN 28 2021
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			STATE ENGINEERS OFFICE DEMING, NEW MEXICO SEP 13 2021
Additive 2 percent by dry weight relative to cement			

*See PPO conditions dated 9/30/2021 - EFW*

*EFW*

*GSP - 4731*

**TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.**

	<b>Interval 1 – deepest</b>	<b>Interval 2</b>	<b>Interval 3 – most shallow</b>
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	Please see attached sheets for hole volumes		
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

See ppo Conditions dated 9/30/2021 - EPEW

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EPEW

GSF-4731



# NEW MEXICO OFFICE OF THE STATE ENGINEER



## ATTACHMENT to WD-08 Plan of Plugging MULTIPLE MONITORING WELL DESCRIPTIONS

This Attachment is to be completed if more than one (1) monitoring well is to be plugged using the same method.

Location (Required):									
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone		<input checked="" type="checkbox"/> UTM (NAD83) (Meters) <input type="checkbox"/> Zone 13N <input checked="" type="checkbox"/> Zone 12N		<input type="checkbox"/> Lat/Long (WGS84) (1/10 <sup>th</sup> of second)		OTHER (allowable only for move-from descriptions - see application form for format) <input checked="" type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant			
OSE POD Number:	Other Well ID:	X or Longitude (ddmmss):	Y or Latitude (ddmmss):	Other Location Info (PLSS):	Casing ID (inches):	Depth to Water (ft bgs):	Total well Depth (ft bgs):	Grout Volume:	Surface Casing (Y or N):
GSE-4731 POD 7	MOG21-0007	704960	3698417	T10S R19W Section 28 SE	2.50	unknown	1150	813.846	Y
GSE-4731 POD 8	MOG21-0008	704960	3698417	T10S R19W Section 28 SE	2.50	unknown	950	677.666	Y
GSE-4731 POD 1	MOG21-0001	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1450	1018.116	Y
GSE-4731 POD 2	MOG21-0002	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1300	915.981	Y
GSE-4731 POD 3	MOG21-0003	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1400	984.071	Y
GSE-4731 POD 4	MOG21-0004	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1500	1052.161	Y
GSE-4731 POD 11	MOG21-0011	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1550	1086.206	Y
GSE-4731 POD 12	MOG21-0012	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1600	1120.251	Y
GSE-4731 POD 14	MOG21-0014	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1750	1222.386	Y
GSE-4731 POD 15	MOG21-0015	705028	3698476	T10S R19W Section 27 SW	2.50	unknown	1750	1222.386	Y
GSE-4731 POD 5	MOG21-0005	705041	3698573	T10S R19W Section 27 SW	2.50	unknown	1500	1052.161	Y
GSE-4731 POD 6	MOG21-0006	705041	3698573	T10S R19W Section 27 SW	2.50	unknown	1100	779.801	Y

FOR OSE INTERNAL USE Multiple Monitoring POD Descriptions, Form wr-08m (Rev 7/31/19)

File Number: <b>GSE-04731</b>	Trn Number:
Trans Description (optional): <b>ppo</b>	

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*GSEW*





**NEW MEXICO OFFICE OF THE STATE ENGINEER**



**ATTACHMENT to WD-08 Plan of Plugging  
MULTIPLE MONITORING WELL DESCRIPTIONS**

This Attachment is to be completed if more than one (1) monitoring well is to be plugged using the same method.

Location (Required):									
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone		<input checked="" type="checkbox"/> UTM (NAD83) (Meters) <input type="checkbox"/> Zone 13N <input checked="" type="checkbox"/> Zone 12N		<input type="checkbox"/> Lat/Long (WGS84) (1/10 <sup>th</sup> of second)		OTHER (allowable only for move-from descriptions - see application form for format) <input checked="" type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant			
OSE POD Number:	Other Well ID:	X or Longitude (ddmmss):	Y or Latitude (ddmmss):	Other Location Info (PLSS):	Casing ID (inches):	Depth to Water- (ft bgs):	Total well Depth- (ft bgs):	Grout Volume:	Surface Casing (Y or N):
GSF-4731 POD 9	MOG21-0009	705056	3698633	T10S R19W Section 27 SW	2.50	Unknown	1300	915.981	Y
GSF-4731 POD 16	MOG21-0016	705056	3698633	T10S R19W Section 27 SW	2.50	Unknown	1600	1120.251	Y
GSF-4731 POD 10	MOG21-0010	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1100	779.801	Y
GSF-4731 POD 17	MOG21-0017	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1450	1018.116	Y
GSF-4731 POD 19	MOG21-0019	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1250	881.936	Y
GSF-4731 POD 20	MOG21-0020	705070	3698734	T10S R19W Section 27 SW	2.50	Unknown	1600	1120.251	Y
GSF-4731 POD 13	MOG21-0013	705008	3698714	T10S R19W Section 28 SE	2.50	Unknown	850	609.576	Y
GSF-4731 POD 18	MOG21-0018	705008	3698714	T10S R19W Section 28 SE	2.50	Unknown	800	575.531	Y

FOR OSE INTERNAL USE Multiple Monitoring POD Descriptions, Form wr-08m (Rev 7/31/19)

File Number: <u>GSF-04731</u>	Tm Number:
Trans Description (optional): <u>ppd</u>	

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**ATTACHMENT  
STATE ENGINEER CONDITIONS OF APPROVAL**

**FILE:** GSF-04731

**APPLICATION:** GSF-04731-POD1 through GSF-04731-POD20 PPO

**APPLICANT:** Summa Silver Corporation

This Plugging Plan of Operation is approved provided it is not exercised to the impairment of any others having existing rights prior to this application; further provided that all rules and regulations of the State Engineer pertaining to the plugging of shallow wells be complied with and followed; and implementation is not detrimental to the public welfare or contrary to the conservation of water within the state.

1. Water well drilling and well/exploratory borehole drilling activities, including well/borehole plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer.
2. Boreholes GSF-04731-POD1 through GSF-04731-POD20 plugging operations shall conform stringently to the conditions and descriptions as detailed below, and per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; 19.27.4.30.C., whichever is the more stringent. Adherence to specific Portland Cement, as approved in quantities and types, and maximum quantities of water in the approved mix design shall be maintained without deviation to achieve the maximum sealant and plugging performance capabilities for the mix as detailed herein. Placement of all plugging components and sealants shall be done in strict compliance to these conditions and to meet or exceed New Mexico State Engineers' standards and regulations for plugging of wells, or as recommended by the New Mexico State Engineer.

Placement of all plugging components and sealants shall be done in strict compliance to the conditions herein and to mix designs as detailed herein. Sealant for boreholes shall be Portland neat cement, mixed according to manufacturer's recommendations and with a maximum of six (5.8) gallons of potable water per ninety-four (94.0) pound sack of Portland Cement, developing a slurry weight of approximately fifteen (15.0) pound per gallon, and a total volume of 8.8 gallons for the blended mix of one (1.0) each 94 pound sack of Portland Cement and 5.8 gallons of potable water. Neat Cement slurry (as detailed above) shall be placed the total depth from bottom of borehole to within two (2.0) feet of ground surface, followed by two (2.0) feet of topsoil/topdressing. Portland cement shall be Type I/II.

Placement of the sealant within the bore hole shall be by pumping through a tremie pipe or drill string extended to near hole bottom and kept below top of the slurry column as the hole is plugged from bottom-upwards in a manner that displaces the standing water column upwards from below. Tremie pipe or drill string may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

Should Temporary Casing be used in the drilling of the borehole with intent to be extracted prior to or during plugging operations, prevention of deleterious fall-in, drainage, or drill cuttings into the annulus outside of the temporary casing shall be achieved by installation of an appropriate fluid-tight annular seal at ground surface at the beginning of drilling operations. The annular seal shall begin at ground surface and extend a minimum of twenty feet in depth below the surface of the ground. Upon casing extraction,



provision shall be made for proper borehole clean-out prior to commencing plugging operations and placement of sealant.

Should the MMD, New Mexico Environment Department, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein described, the more-stringent procedure shall be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process. Should a more stringent plugging requirement be required by other regulatory agency or agencies, then, the permittee will submit to the District 3 Office of the New Mexico State Engineer the revised requirements in writing and detail and obtain written approval to proceed from the District 3 Office of the New Mexico State Engineer prior to proceeding with plugging operations.

3. Office of the State Engineer witnessing of the plugging of non-artesian bore holes is not required. However, shall be facilitated upon request, or if onsite. Should **Artesian Conditions** be encountered resulting in free flow of water to the surface, **or a rise/increase in static water level from one geologic strata to another**, drilling will cease immediately, and the Water Rights Division of the District 3 Office of the New Mexico State Engineer in Deming, New Mexico shall be contacted. Drilling will remain inactive until a revised drilling plan is approved. Under Artesian conditions, drilling procedures shall be modified to adhere and comply with Artesian Well Requirements. A specific Artesian Conditions drilling plan and Plugging Plan of Operations shall be submitted and approved prior to continuation of drilling for each borehole that encounters artesian conditions. The plugging of artesian wells shall be witnessed by an authorized representative of the State Engineer.
4. The well driller shall submit a Plugging Record for each borehole, in triplicate, with the State Engineer's Office and shall provide copy to the applicant within 30 days of completion of plugging of the boreholes, but no later than October 31, 2022. OSE Plugging Record (available at: <http://www.ose.state.nm.us/PDF/WellDrillers/WD-11.pdf>) itemizing actual abandonment process and materials used shall be filed with the District 3 Office of the New Mexico State Engineer, 321 W. Spruce St., Deming, New Mexico 88030, within 30 days after completion of well plugging.
5. The State Engineer retains jurisdiction to administer the conditions of this permit.
6. Plugging of boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be completed no later than October 31, 2022.

Witness my hand and seal this 30th day of September 2021 .

John D'Antonio, Jr., P.E. State Engineer



Lloyd R. Valentine III  
District 3 Manager





# BAROID Industrial Drilling Products

REPORT NUMBER

## Abandonment Calculations

OPERATOR		CONTRACTOR		DEPTH (FT)		DATE					
REPORT FOR:		REPORT FOR:		RIG NUMBER		DRILL SUPERVISOR AND CONTACT NUMBER					
HOLE NUMBER		PROJECT NAME		COUNTY		STATE/PROV. NV					
MUD VOLUME (gallons)		DRILLING STRING		CASING		CIRCULATION DATA					
Hole	0	Drill Pipe/Rod	ID	Length	0	Set at:	Bean Pump Make/Mod				
Pin	3000	Drill Collar, OD	ID	Length		Set at:	FMC BEAN 35				
Total	3000	Drill Collar, OD	ID	Length		Set at:	35				
Mud Type	LSND	Water Base	BIT DATA		OPEN HOLE SECTIONS		Triplex Pump Make/Mod				
Size		Type	Size	Length	0	Size	0 X 0				
No. Jots		Jots	Size	Length		Eff. %	Vol./skt.				
						Vol./min. (gal)	0				
MUD PROPERTIES		State Regs		PERSONNEL		STATE ENGINEERS OFFICE DEMING, NEW MEXICO					
Sample From	<input type="checkbox"/> FL <input checked="" type="checkbox"/> Pit	<input type="checkbox"/> FL <input type="checkbox"/> Pit	Day Driller -		Night Driller -		SEP 13 2021				
Time Sample Taken			Helper -		Helper -						
Depth (FT)			Helper -		Helper -						
Weight (lb/gal.)		> 9.5	<p align="center"><b>PRESENT ACTIVITY / PROBLEMS EXPERIENCED</b></p> <p align="center">Calculate Abandonment Material Requirements as follows:</p> <ol style="list-style-type: none"> <li>Calculate Hole Volume to be abandoned using volumes below.               <ol style="list-style-type: none"> <li>Add 10% (multiply Hole Volume*1.1) for 100% returns</li> <li>Add 50%-100% (multiply Hole Volume*1.5-2) for no returns</li> </ol> </li> <li>Divide Final Hole Volume by 26.3 to get # Skes BORE-GROUT required</li> <li>Multiply # Skes BORE-GROUT * 24 Gallons Water to get Water required</li> <li>If Mix tank is not large enough to mix entire calculated hole volume, divide quantities by 2 or 3, etc. to figure out Batch Quantities</li> </ol> <p align="center"><b>HOLE Volume = (Hole ID<sup>2</sup>/24.52)*Hole Depth</b></p> <p align="center"><b>RECOMMENDATIONS/CHANGES</b></p> <p align="center"><b>Hole Volume Calculations: (Hole ID or Bit Diameter<sup>2</sup>)/24.52*Depth</b></p> <p>NQ Std (2.980"): 0.362 Gallons/Ft or 36.2 Gallons/100 Ft</p> <p>NQ OS (3.032"): 0.375 Gallons/Ft or 37.5 Gallons/100 Ft</p> <p>HQ Std (3.782"): 0.583 Gallons/Ft or 58.3 Gallons/100 Ft</p> <p>HQ OS (3.830"): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft</p> <p>HQ OS (3.895"): 0.619 Gallons/Ft or 61.9 Gallons/100 Ft</p> <p>PQ Std (4.827"): 0.950 Gallons/Ft or 95.0 Gallons/100 Ft</p> <p>PQ OS (4.950"): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft</p> <p align="center"><b>Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions</b></p> <p align="center"><b>MUD PROPERTY SPECIFICATIONS</b></p> <p>WEIGHT &lt; 8.6    VISCOSITY &lt; 38-45    FILTRATE &lt; 12.0</p> <p>BY AUTHORITY    <input type="checkbox"/> Operators Written    <input type="checkbox"/> Drilling Contractor</p> <p>                          <input checked="" type="checkbox"/> Operators Representative    <input type="checkbox"/> Other</p>								
Funnel Viscosity (sec/qt)											
600 rpm Reading											
300 rpm Reading											
Plastic Viscosity cp		0									
Yield Point, lb/100 ft <sup>2</sup>		0									
Gel Strength (10 sec / 10 min) lb/100 ft <sup>2</sup>		/									
Filtrate API cm <sup>3</sup> / 30 min.		< 9.0									
Cake Thickness 32nd in.		>20.0									
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter											
Filtrate Total Hardness as Calcium, ppm											
Make-up Water (pH/Hardness-strip)		/									
Chloride, mg/L											
Torque (ft-lbs/psi on gauge)											
Pump Pressure (PSI) digital/analog											
Pump Rate (GPM) on gauge		0									
Return Flow (%/GPM)											
Fluid Level (From Surface)		0									
Weight on Bit (lbs.)											
Rotational RPM (estimated)											
Annular/Up Hole Velocity, ft/min		#DIV/0!									
Annular/ Up Hole Velocity Recommendation		60- 120 ft/min									
<b>CURRENT MIX (XXX GALLON MIX TANK)</b>				<b>RECOMMENDED TREATMENT (XXX GALLON MIX TANK)</b>							
PRODUCT (IN THIS ORDER)	LB/100 GALLONS	LB/PER TANK	TOTAL UNITS	PRODUCT (IN THIS ORDER)	LB/100 GALLONS	LB/PER TANK	TOTAL UNITS				
3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack				Water							
NQ HOLE			14'	BORE-GROUT			24 Gallons				
HQ HOLE			9'				1 Sk				
PQ HOLE			5'								
Cement Mix											
Water			2.6 Gallons								
Cement			1 (47lb) Sk								
2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry				24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of Slurry							
BAROID REPRESENTATIVE	Dave Colburn	HOME/OFFICE	Western US	TELEPHONE	(775) 385-0602						
BAROID DISTRIBUTOR	Jentech	WAREHOUSE	Elko/Sparks	TELEPHONE	(775) 397-0498						

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY BAROID DRILLING FLUIDS, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
JUN 28 2021

GSF-4731

Abandonment for Non-Artisan holes - Bore grout with 10 foot cement cap

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
JUN 28 2021

Drillhole ID	Easting (NAD83)	Northing (NAD83)	Elevation (NAD 83)	Pad ID	Township/range/Section/Qsection
MOG21-0007	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0008	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0001	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0002	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0003	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0004	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0011	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0012	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0014	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0015	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0005	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0006	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0009	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0016	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0010	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0017	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0019	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0020	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0013	705008	3698714	2165	26	T10S R19W Section 28 SE
MOG21-0018	705008	3698714	2165	26	T10S R19W Section 28 SE

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO

SEP 13 2021

GSE-4731



STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
JUN 28 2021

Abandonment for Non-Artisan holes - Bore grout with 10 foot cement cap

Drillhole ID	TD (Feet)	Casing PQ OS 4.950" Feet	HQ OS 3.895" Feet	PQ Volume	HQ Volume	Total Volume	Hole Volume x1.1	Sks Bore-Grout	Sks Cement
MOG21-0007	1150	100	1050	89.91	649.95	739.86	813.845	31	1
MOG21-0008	950	100	850	89.91	526.15	616.06	677.666	26	1
MOG21-0001	1450	100	1350	89.91	835.65	925.56	1018.116	39	1
MOG21-0002	1300	100	1200	89.91	742.8	832.71	915.981	35	1
MOG21-0003	1400	100	1300	89.91	804.7	894.61	984.071	37	1
MOG21-0004	1500	100	1400	89.91	866.6	956.51	1052.161	40	1
MOG21-0011	1550	100	1450	89.91	897.55	987.46	1086.206	41	1
MOG21-0012	1600	100	1500	89.91	928.5	1018.41	1120.251	43	1
MOG21-0014	1750	100	1650	89.91	1021.35	1111.26	1222.386	46	1
MOG21-0015	1750	100	1650	89.91	1021.35	1111.26	1222.386	46	1
MOG21-0005	1500	100	1400	89.91	866.6	956.51	1052.161	40	1
MOG21-0006	1100	100	1000	89.91	619	708.91	779.801	30	1
MOG21-0009	1300	100	1200	89.91	742.8	832.71	915.981	35	1
MOG21-0016	1600	100	1500	89.91	928.5	1018.41	1120.251	43	1
MOG21-0010	1100	100	1000	89.91	619	708.91	779.801	30	1
MOG21-0017	1450	100	1350	89.91	835.65	925.56	1018.116	39	1
MOG21-0019	1250	100	1150	89.91	711.85	801.76	881.936	34	1
MOG21-0020	1600	100	1500	89.91	928.5	1018.41	1120.251	43	1
MOG21-0013	850	100	750	89.91	464.25	554.16	609.576	23	1
MOG21-0018	800	100	700	89.91	433.3	523.21	575.531	22	1

All boreholes shall be plugged with "Neat Cement" to be mixed & placed as detailed &/or conditioned by permit.  
-EPW D30SE

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
SEP 13 2021

GSF-4731





# BAROID Industrial Drilling Products

REPORT NUMBER

## Cement Abandonment Calculations

OPERATOR		CONTRACTOR		RIG NUMBER			
REPORT FOR:		REPORT FOR:		DRILL SUPERVISOR AND CONTACT NUMBER			
HOLE NUMBER	PROJECT NAME	COUNTY		STATE/PROV. NV			
MUD VOLUME (gallons)	DRILLING STRING	CASING	CIRCULATION DATA				
Hole 0	Drill Pipe/Rod ID Length 0	Set at:	Bean Pump Make/Mod	FMC BEAN 35			
Pits 3000	Drill Collar, OD ID Length	Set at:	Size 0 X 0	Eff. % 0.00	Vol./stk. 35		
Total 3000	Drill Collar, OD ID Length	Set at:	Stk/min. 0	Vol./min. (gal)	0		
Mud Type Water Base	BIT DATA	OPEN HOLE SECTIONS		Triplex Pump Make/Mod			
LSND	Size	Size	Length	Size 0 X 0	Eff. % Vol./stk. 0		
	Type	Size	Length	Stk/min. 0	Vol./min. (gal) 0		
	No. Jets	Size	Length	Compressor Make			
	Jets			Compressor Model			
				cfm	psi		
MUD PROPERTIES		State Regs		PERSONNEL			
Sample From	<input type="checkbox"/> FL <input checked="" type="checkbox"/> Pit	<input type="checkbox"/> FL <input type="checkbox"/> Pit	Day Driller -	Night Driller -			
Time Sample Taken			Helper -	Helper -			
Depth (FT)			Helper -	Helper -			
Weight (lb/gal.)		15.6	<p align="center"><b>PRESENT ACTIVITY / PROBLEMS EXPERIENCED</b></p> <p align="center">Calculate Abandonment Material Requirements as follows:</p> <ol style="list-style-type: none"> <li>Calculate Hole Volume to be abandoned using volumes below.               <ol style="list-style-type: none"> <li>Add 10% (multiply Hole Volume*1.1) for 100% returns</li> <li>Add 50%-100% (multiply Hole Volume*1.5-2) for no returns</li> </ol> </li> <li>Divide Final Hole Volume by 4.4 to get # Sk 47lb Cement required</li> <li>Multiply # Sk 47lb Cement * 2.6 Gallons Water to get Water required</li> <li>If Mix tank is not large enough to mix entire calculated hole volume, divide quantities by 2 or 3, etc. to figure out Batch Quantities</li> </ol> <p align="center"><b>HOLE Volume = (Hole ID<sup>2</sup>/24.52)*Hole Depth</b></p> <p align="center"><b>COMMON BIT SIZE</b></p> <p>BQ RSG (2.360"): 0.227 Gallons/Ft or 22.7 Gallons/100 Ft                NQ RSG (2.980"): 0.362 Gallons/Ft or 36.2 Gallons/100 Ft                NQ OS (3.032"): 0.375 Gallons/Ft or 37.5 Gallons/100 Ft                HQ RSG (3.782"): 0.583 Gallons/Ft or 58.3 Gallons/100 Ft                HQ OS (3.830"): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft                HQ OS (3.895"): 0.619 Gallons/Ft or 61.9 Gallons/100 Ft                PQ RSG (4.827"): 0.950 Gallons/Ft or 95.0 Gallons/100 Ft                PQ OS (4.900"): 0.979 Gallons/Ft or 97.9 Gallons/100 Ft</p> <p align="center"><b>Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions</b></p> <p align="center"><b>MUD PROPERTY SPECIFICATIONS</b></p> <p>WEIGHT &lt; 8.6 VISCOSITY &lt; 38-45 FILTRATE &lt; 12.0</p> <p>BY AUTHORITY <input type="checkbox"/> Operators Written <input type="checkbox"/> Drilling Contractor  <input checked="" type="checkbox"/> Operators Representative <input type="checkbox"/> Other</p>				
Funnel Viscosity (sec/qt)							
600 rpm Reading							
300 rpm Reading							
Plastic Viscosity cp	0						
Yield Point, lb/100 ft <sup>2</sup>	0						
Gel Strength (10 sec / 10 min) lb/100 ft <sup>2</sup>	/						
Filtrate API cm <sup>3</sup> / 30 min.							
Cake Thickness 32nd In.							
Bentonite Solids %							
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter							
Filtrate Total Hardness as Calcium, ppm							
Make-up Water (pH/Hardness-strip)	/						
Chloride, mg/L							
Torque (ft-lbs/psi on gauge)							
Pump Pressure (PSI) digital/analog							
Pump Rate (GPM) on gauge	0						
Return Flow (%/GPM)							
Fluid Level (From Surface)	0						
Weight on Bit (lbs.)							
Rotational RPM (estimated)							
Annular/Up Hole Velocity, ft/min	#DIV/0!						
Annular/ Up Hole Velocity Recommendation	60- 120 ft/min						
<b>CURRENT MIX (XXX GALLON MIX TANK)</b>			<b>RECOMMENDED TREATMENT (XXX GALLON MIX TANK)</b>				
PRODUCT (IN THIS ORDER)	LB/100 GALLONS	LB/PER TANK	TOTAL UNITS	PRODUCT (IN THIS ORDER)	LB/100 GALLONS	LB/PER TANK	TOTAL UNITS
3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack				Cement Mix			
NQ HOLE			14'	Water			2.6 Gallons
HQ HOLE			9'	47lb Cement			1 Sk
PQ HOLE			5'	Water			5.2 Gallons
				94lb Cement			1 Sk
				2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons of Slurry			
				5.2 Gallons Water + 1 (94lb) Sk Cement Yields 8.8 Gallons of Slurry			
BAROID REPRESENTATIVE	Dave Colburn	HOME/OFFICE	Western US	TELEPHONE	(775) 385-0602		
BAROID DISTRIBUTOR	Jentech	WAREHOUSE	Elko/Sparks	TELEPHONE	(775) 397-0498		

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STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
SEP 13 2021

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
JUN 28 2021

GSP-4731

Abandonment for Artisan Holes - Cement

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO  
JUN 28 2021

Drillhole ID	Easting (NAD83)	Northing (NAD83)	Elevation (NAD 83)	Pad ID	Township/range/Section/Qsection
MOG21-0007	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0008	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0001	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0002	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0003	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0004	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0011	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0012	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0014	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0015	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0005	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0006	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0009	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0016	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0010	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0017	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0019	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0020	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0013	705008	3698714	2165	26	T10S R19W Section 28 SE
MOG21-0018	705008	3698714	2165	26	T10S R19W Section 28 SE

STATE ENGINEERS OFFICE  
DEMING, NEW MEXICO

SEP 13 2021

GSF-4731

JUN 28 2021  
 STATE ENGINEERS OFFICE  
 DEMING, NEW MEXICO

Abandonment for Artisan Holes - Cement

Drillhole ID	TD (Feet)	Casing PQ OS 4.950" Feet	HQ OS 3.895" Feet	PQ Volume	HQ Volume	Total Hole Volume	Hole Volume x1.1	Sks of Cement
MOG21-0007	1150	100	1050	97.9	649.95	747.85	822.635	93
MOG21-0008	950	100	850	97.9	526.15	624.05	686.455	78
MOG21-0001	1450	100	1350	97.9	835.65	933.55	1026.905	117
MOG21-0002	1300	100	1200	97.9	742.8	840.7	924.77	105
MOG21-0003	1400	100	1300	97.9	804.7	902.6	992.86	113
MOG21-0004	1500	100	1400	97.9	866.6	964.5	1060.95	121
MOG21-0011	1550	100	1450	97.9	897.55	995.45	1094.995	124
MOG21-0012	1600	100	1500	97.9	928.5	1026.4	1129.04	128
MOG21-0014	1750	100	1650	97.9	1021.35	1119.25	1231.175	140
MOG21-0015	1750	100	1650	97.9	1021.35	1119.25	1231.175	140
MOG21-0005	1500	100	1400	97.9	866.6	964.5	1060.95	121
MOG21-0006	1100	100	1000	97.9	619	716.9	788.59	90
MOG21-0009	1300	100	1200	97.9	742.8	840.7	924.77	105
MOG21-0016	1600	100	1500	97.9	928.5	1026.4	1129.04	128
MOG21-0010	1100	100	1000	97.9	619	716.9	788.59	90
MOG21-0017	1450	100	1350	97.9	835.65	933.55	1026.905	117
MOG21-0019	1250	100	1150	97.9	711.85	809.75	890.725	101
MOG21-0020	1600	100	1500	97.9	928.5	1026.4	1129.04	128
MOG21-0013	850	100	750	97.9	464.25	562.15	618.365	70
MOG21-0018	800	100	700	97.9	433.3	531.2	584.32	66

STATE ENGINEERS OFFICE  
 DEMING, NEW MEXICO

SEP 13 2021

255-4731





STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER  
District 3 Office, Deming, NM

Tom Blaine, P.E.  
State Engineer

321 WEST SPRUCE STREET  
DEMING, NEW MEXICO 88030  
PHONE: (575) 546-2851  
FAX: (575) 546-2290

September 30, 2021

FILE: GSF-04731

Summa Silver Corporation  
c/o Chris York  
2552 Hamilton Creek Trail  
Elko, NV 89801

Greetings:

Enclosed is your copy of Plugging Plan of Operations for GSF-04731-POD1 through GSF-04731-POD20, which has been approved.

Your attention is called to the Conditions of Approval under Plugging Plan of operations for well GSF-04731-POD1 through GSF-04731-POD20, which state as follows:

This Plugging Plan of Operation is approved provided it is not exercised to the impairment of any others having existing rights prior to this application; further provided that all rules and regulations of the State Engineer pertaining to the plugging of shallow wells be complied with and followed; and implementation is not detrimental to the public welfare or contrary to the conservation of water within the state.

1. Water well drilling and well/exploratory borehole drilling activities, including well/borehole plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer.
2. Boreholes GSF-04731-POD1 through GSF-04731-POD20 plugging operations shall conform stringently to the conditions and descriptions as detailed below, and per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; 19.27.4.30.C., whichever is the more stringent. Adherence to specific Portland Cement, as approved in quantities and types, and maximum quantities of water in the approved mix design shall be maintained without deviation to achieve the maximum sealant and plugging performance capabilities for the mix as detailed herein. Placement of all plugging components and sealants shall be done in strict compliance to these conditions and to meet or exceed New Mexico State Engineers' standards and regulations for plugging of wells, or as recommended by the New Mexico State Engineer.

Placement of all plugging components and sealants shall be done in strict compliance to the conditions herein and to mix designs as detailed herein. Sealant for boreholes shall be Portland neat cement, mixed according to manufacturer's recommendations and with a maximum of six

(5.8) gallons of potable water per ninety-four (94.0) pound sack of Portland Cement, developing a slurry weight of approximately fifteen (15.0) pound per gallon, and a total volume of 8.8 gallons for the blended mix of one (1.0) each 94 pound sack of Portland Cement and 5.8 gallons of potable water. Neat Cement slurry (as detailed above) shall be placed the total depth from bottom of borehole to within two (2.0) feet of ground surface, followed by two (2.0) feet of topsoil/topdressing. Portland cement shall be Type I/II.

Placement of the sealant within the bore hole shall be by pumping through a tremie pipe or drill string extended to near hole bottom and kept below top of the slurry column as the hole is plugged from bottom-upwards in a manner that displaces the standing water column upwards from below. Tremie pipe or drill string may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

Should Temporary Casing be used in the drilling of the borehole with intent to be extracted prior to or during plugging operations, prevention of deleterious fall-in, drainage, or drill cuttings into the annulus outside of the temporary casing shall be achieved by installation of an appropriate fluid-tight annular seal at ground surface at the beginning of drilling operations. The annular seal shall begin at ground surface and extend a minimum of twenty feet in depth below the surface of the ground. Upon casing extraction, provision shall be made for proper borehole clean-out prior to commencing plugging operations and placement of sealant.

Should the MMD, New Mexico Environment Department, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein described, the more-stringent procedure shall be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process. Should a more stringent plugging requirement be required by other regulatory agency or agencies, then, the permittee will submit to the District 3 Office of the New Mexico State Engineer the revised requirements in writing and detail and obtain written approval to proceed from the District 3 Office of the New Mexico State Engineer prior to proceeding with plugging operations.

3. Office of the State Engineer witnessing of the plugging of non-artesian bore holes is not required. However, shall be facilitated upon request, or if onsite. Should **Artesian Conditions** be encountered resulting in free flow of water to the surface, **or a rise/increase in static water level from one geologic strata to another**, drilling will cease immediately, and the Water Rights Division of the District 3 Office of the New Mexico State Engineer in Deming, New Mexico shall be contacted. Drilling will remain inactive until a revised drilling plan is approved. Under Artesian conditions, drilling procedures shall be modified to adhere and comply with Artesian Well Requirements. A specific Artesian Conditions drilling plan and Plugging Plan of Operations shall be submitted and approved prior to continuation of drilling for each borehole that encounters artesian conditions. The plugging of artesian wells shall be witnessed by an authorized representative of the State Engineer.
4. The well driller shall submit a Plugging Record for each borehole, in triplicate, with the State Engineer's Office and shall provide copy to the applicant within 30 days of completion of plugging of the boreholes, but no later than October 31, 2022. OSE Plugging Record (available at: <http://www.ose.state.nm.us/PDF/WellDrillers/WD-11.pdf>) itemizing actual abandonment process and materials used shall be filed with the District 3 Office of the New Mexico State Engineer, 321 W. Spruce St., Deming, New Mexico 88030, within 30 days after completion of well plugging.

5. The State Engineer retains jurisdiction to administer the conditions of this permit.
6. Plugging of boreholes GSF-04731-POD1 through GSF-04731-POD20 shall be completed no later than October 31, 2022.

Sincerely,

Lloyd R. Valentine III  
District 3 Manager

By:   
Eric R. Woodhouse CPESC  
Water Resource Professional III  
District 3 Office of the New Mexico State Engineer

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