PART 3 MINIMAL IMPACT EXPLORATION OPERATION

PERMIT APPLICATION

Accompanying instructions for this permit application are available from MMD, and on MMD webpage:

http://www.emnrd.state.nm.us/MMD/MARP/MARPApplicationandReportingForms.htm

Send 6 copies of the completed application to:

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Director

Mining and Minerals Division 1220 South Saint Francis Drive Santa Fe, New Mexico 87505 Telephone: (505) 476-3400

Webpage: www.emnrd.state.nm.us/MMD/index.htm

CHECK OFF LIST TO DETERMINE YOUR PROJECT'S STATUS AS A MINIMAL IMPACT EXPLORATION OPERATION:

☐ Yes	⊠ No	My project <u>will exceed 1000 cubic yards of excavation</u> , per permit (drill pads, mud pits, and roads will not be counted in excavated materials).
☐ Yes	⊠ No	Surface disturbances for constructed roads, drill pads and mud pits <u>will</u> <u>exceed 5 acres</u> total for my project.
☐ Yes	⊠ No	My project is located in or is expected to have a direct surface impact on wetlands, springs, perennial or intermittent streams, lakes, rivers reservoirs or riparian areas.
☐ Yes	⊠ No	My project is located in designated critical habitat areas as determined in accordance with the federal Endangered Species Act of 1973 or in areas determined by the Department of Game and Fish likely to result in an adverse impact on an endangered species designated in accordance with the Wildlife Conservation Act, Sections 17-2-37 through 17-2-46 NMSA 1978 or by the State Forestry Division for the Endangered Plants Act, section 75-6-1 NMSA 1978.

☐ Yes	⊠ No	My project is located in an area designated as Federal Wilderness Area Wilderness Study Area, Area of Critical Environmental Concern, or an area within the National Wild and Scenic River System.
☐ Yes	⊠ No	My project is located in a known cemetery or other burial ground.
☐ Yes	⊠ No	My project is located in an area with cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties.
☐ Yes	⊠ No	My project will or is expected to have a direct impact on ground water that has a total dissolved solids concentration of less than 10,000 mg/L, except exploratory drilling intersecting ground water may be performed as a minimal impact operation.
☐ Yes	⊠ No	My project is expected to use or using cyanide, mercury amalgam, heap leaching or dump leaching in its operations.
☐ Yes	⊠ No	My project is expected to result in point or non-point source surface or subsurface releases of acid or other toxic substances from the permit area.
☐ Yes	⊠ No	My project requires a variance from any part of the Mining Act Rules as part of the permit application.
	swer <u>yes</u> to a on operation	any of the above questions, your project <u>does not</u> qualify as a minimal impact n.
Confide	ntial Infor	mation
☐ Yes	⊠ No	Is any of the information submitted in this application considered by the applicant to be confidential in nature? If yes, please provide this information separately and marked as "confidential."
Timeline	9	
		pplications must be provided no less than 45 days prior to the anticipated tions desired by the applicant.
		lications shall be filed at least 30 days preceding expiration of the current its are valid for one year.
• Ar	oproved per	mit is valid for one year from the date of approval

SECTION 1 – OPERATOR INFORMATION (§304.D.1)

Project Name: Peru Mill Tailings Project				
Nearest Town To Project: Deming New Mexico				
Applicant	Name and Contact Information (entity	obligated under the Mining Act):		
Name:	Mr. Paul Forshey			
Address:	39 Leaf Circle			
	Crossville, TN., 38558			
Office Pho	one: , <u>615.517.1817</u>	Cell Phone: , 615.517.1817		
Fax Numb	er: Not Applicable (NA)	Email: pandrforshey@gmail.com		
Name of On-Site Contact, Representative, or Consultant:				
Name: <u>E.</u>	Terry Jensen G3 - Gauvreau G	eoEnvironmental Group Inc.		
Address:	420 Westview Drive			
<u>Su</u>	dbury, Ontario P3C 3M5			
Office Pho	one: <u>1-705-682-3333</u>	Cell Phone: <u>519-635-0160</u>		
Fax Numb	per:	Email: tiensen@a3inc.ca		

SECTION 2 - RIGHT TO ENTER INFORMATION (§302.D.1)

A.	Describe or attach copies of documents that give the applicant the right to enter the property to conduct the exploration and reclamation, include: lease agreements, access agreements right of way agreements, surface owner agreements, and claim numbers, if applicable.				
Se	ee Attachment				
_					
B.		of surface and mineral ownership within neral, indicate as federal mineral, but pro			
Sı	urface Estate Owner(s):				
Na	ame	Address	Phone #		
	U.S. BLM				
	U.S. Forest Service				
	State of NM				
	Private/Corporate				
Na	ame:				
\boxtimes] Other				
Na	ame: City of Deming	309 Gold St., P.O. Box 706,			
D	eming, NM., 88031		_		
<u>At</u>	tn: Aaron Sera, City Adminis	trator, 575.546.6442			

Permit Application Revision Date: February 2012

Lease Holder(s) of Surface Estate (if applicable):

Name	Address	Phone #
	City of Deming; See above	
	MARKET MA	_
		_
		
Mineral Estate Owner(s):		
Name	Address	Phone #
☐ Bureau of Land Management		
☐ US Forest Service	E .	
State of NM		
		_
x Claim/Lease Holder	City of Deming; See above	_
Name:		_
Claim Numbers:		
☐ Claim/Lease Holder		
Name:		_
Other		
_		
		_

C. Has a Cultural Resource Survey been performed on the site?
Yes No If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:
Attachment
D. Has a wildlife survey or vegetation survey been performed for the permit area?
Yes No If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:
Attachment

SECTION 3 – MAPS AND PROJECT LOCATION (§302.D.2)

Townsh	ip023S	Range	009W	Section	18	
Townsh	ip	Range	Range		Section	
Townsh	ip	Range		Section		
t the drill	hole/exploration r	name and the GPS o	coordinates for	each site.		
I.D. Number	Northing / Latitude	Easting / Longitude	I.D. Number	Northing / Latitude	Easting / Longitude	
11	3577386.86	235470.94			3	
32	3577198.41	235520.08			MT-11-11-11-11-11-11-11-11-11-11-11-11-11	
3	3577244.26	235698.92			**************************************	
34	3577118.11	235665.48				
55	3577025.86	235688.64				
86	3577589.03	235353.09				
	- Annual III				A LINE OF THE PARTY OF THE PART	
				ANNUME AND		
				TOTAL		
				- THE LEVEL OF THE		
				PHONE	NAME OF THE OWNER	
ordinate	system used to co	ollect GPS data poin	ıts:			
		_				
	Geographic UTM Zone 13 (or	12) <u> </u>	NAD27 Geogra _l NAD27 UTM Zo	ne 13 (or 12)	W.	
VV US 18	7U 4		Julei		<u> </u>	
			nal boreholes)			

Permit Application Revision Date: February 2012

Are topographic maps included with the application that show the following items:
☑ Yes – The boundary of the proposed exploration project Permit Area
☑ Yes – The proposed exploration locations (i.e., borehole locations)
☑ Yes – Existing roads, new roads and overland travel routes
☐ Yes ☒ N/A — Areas of proposed road improvement
Attachments See Figure 2
Are maps or figures included with the application showing the approximate dimensions and locations of drill pads and other disturbances:
Yes – Drill pad dimensions and constructed drill pad locations
Attachments <u>See Attached Scope of Work document. No conventional pad is required for the proposed shallow borings</u>
C. Provide detailed driving directions to access the site: See Figure 1

SECTION 4 – EXPLORATION DESCRIPTION (§302.D.3 & 4)

A.	Anticipated exploration: Start Date: October 8, 2019 End Date: October 12, 2019					
B.	List the mineral(s)/element(s) to be explored for: Precious and base metals					
 С.	Proposed method(s) of exploration:					
	Air drilling (air rotary, coring, etc.):					
	# of holesDepth (ft.)Diameter (in.)					
	# of drill padsLength (ft.)Width (ft.)					
	Will drill pads be graded/bladed or overland: Graded/bladed Overland					
	Will drill pads need some mechanical leveling (grading/blading): ☐ Yes ☐ No					
	Approx. Weight of Drill Rig (lbs.) Number of Axles:					
	Total length of drill stem that can be carried on the rig:					
	Is a support pipe truck anticipated? Yes No Weight (lbs.)					
	Weight of support compressor (lbs.):Trailer mounted?					
	Anticipated Drilling Contractor: License No					
	Mud/fluid drilling:					
	# of holesDepth (ft.)Diameter (in.)					
	# of drill padsLength (ft.)Width (ft.)					
	Will drill pads be graded/bladed or overland: Graded/bladed Overland					
	Will drill pads need some mechanical leveling (grading/blading): ☐ Yes ☐ No					
	Will a closed loop system be used or will mud/fluid pits be used?					

If mud/fluid pits are proposed:
of pitsLength (ft.)Width (ft.)Depth (ft.)
Anticipated excavating equipment:
How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):
Will mud pits be lined?: ☐ Yes ☐ No
If yes, proposed material to line the mud pits:
Approx. Weight of Drill Rig (lbs.) Number of Axles:
Anticipated Drilling Contractor: License No
Test pits / exploratory trenches:
of pitsLength (ft.)Width (ft.)Depth (ft.)
Anticipated excavating equipment:
How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):
Other methods of exploration (i.e., cuts, shafts, tunnels, adits, declines, blasting,
etc.). Indicate method and details: 10 inch O.D. hollow stem auger drilling to depth of 40
feet below ground surface. Collecting samples using a split spoon samper. The drill rig
weight is estimated to be 12 tons.
AL ACREAGE TO BE DISTURBED DUE TO DRILL PADS = NA acres nvert to acres, multiply total square footage of drill pads by 0.0000229)

Drill pads are not required

	ыорс	isposal of drill cuttings					
	If this exploration project is for uranium or other radioactive elements/minerals, appl agrees to perform a gamma radiation survey at each drill site prior to, and after, explor activities. Applicant/Owner/Operator agrees to restore gamma radiation levels at each site to pre-exploration levels. Yes No N/A						
	Will excess drill cuttings be buried at each drill site location or within a single disposal pit? ☑ At each drill pad- location ☐ Within a single disposal pit						
	lf	a <u>single disposal pit</u> is pro	posed, please pro	vide the following:			
	D	escription or GPS coordina	ates of the propos	ed cuttings disposal pit location:			
	_						
	Di	imensions of the single pro	posed cuttings di	sposal pit (length, width, and depth):			
	_	Length (ft.)	V	Vidth (ft.)Depth (ft.)			
TO							
(to	conve	ert to acres, multiply tota	l square footage	o DISPOSAL PIT =acres of disposal pit by 0.0000229)			
(to	conve		l square footage	e of disposal pit by 0.0000229)			
(to	conve	ert to acres, multiply tota	l square footage	e of disposal pit by 0.0000229)			
(to	Conve	ert to acres, multiply tota Supporting Equipment (ch	I square footage	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (che 4x4 Trucks/Vehicles	I square footage neck all that apply Quantity:	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (che 4x4 Trucks/Vehicles Water Truck	I square footage neck all that apply Quantity: Weight (lbs.):	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (che 4x4 Trucks/Vehicles Water Truck Geophysical Truck	I square footage neck all that apply Quantity: Weight (lbs.): Weight (lbs.):	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (check 4x4 Trucks/Vehicles Water Truck Geophysical Truck Pipe Truck (rig support)	I square footage neck all that apply Quantity: Weight (lbs.): Weight (lbs.): Weight (lbs.):	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (check 4x4 Trucks/Vehicles Water Truck Geophysical Truck Pipe Truck (rig support) Bulldozer	I square footage neck all that apply Quantity: Weight (lbs.): Weight (lbs.): Type:	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (che 4x4 Trucks/Vehicles Water Truck Geophysical Truck Pipe Truck (rig support) Bulldozer Backhoe	I square footage neck all that apply Quantity: Weight (lbs.): Weight (lbs.): Type: Type:	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (che 4x4 Trucks/Vehicles Water Truck Geophysical Truck Pipe Truck (rig support) Bulldozer Backhoe Trackhoe	I square footage neck all that apply Quantity: Weight (lbs.): Weight (lbs.): Type: Type: Type:	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			
(to	Conve	ert to acres, multiply tota Supporting Equipment (check 4x4 Trucks/Vehicles Water Truck Geophysical Truck Pipe Truck (rig support) Bulldozer Backhoe Trackhoe Scaper/Grader	I square footage neck all that apply Quantity: Weight (lbs.): Weight (lbs.): Type: Type: Type: Type: Type:	e of disposal pit by 0.0000229)): 1 drill rig, two support vehicles (pickup			

F.	Roads	and	Overland	Travel:
	1 Voaus	anu	Overland	Havel.

List of <u>new</u> roads to be constructed for this exploration project:

Description of <i>NEW</i> Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
NA			
			1000
TOTAL ACRES DISTURBED BY NEW ROA	D CONSTRI	JCTION :	
Describe how new roads will be constructed:			
List for <u>extension or widening of existing</u> roads:			
Description of Modification to EXISTING Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
NA			X 0.0000229)
TOTAL ACRES DISTURBED BY ROAD	IMPROVE	MENTS:	
Describe how existing roads will be extended or widened	:_NA		

List for routes of overland travel:

Description of OVERLAND TRAVEL Routes	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
See Figure 2			
		- 11111	
TOTAL ACRES DISTURBED BY OV	/ERLAND T	RAVEL:	
naterial storage and/or lay down areas, vehicle parking, created or situated on the site during exploration operation			
	-		
H. TOTAL ACREAGE TO BE DISTURBED BY PR			acres
include all disturbed acreage from drill pads, cutting	leannaih an	nit new	roads improve

roads and overland travel routes)

SECTION 5 - CHEMICAL USE (§302.D.4)

A.	Check a	any and all chemicals that will be u	sed for this projec	et.
		Drilling Mud (i.e., EZ Mud)	Type/Quantity:	
	\boxtimes	Diesel Fuel	Quantity:	50 Gallons
		Down-hole Lubricants	Type/Quantity:	
		Lost Circulation Materials	Type/Quantity:	
	\boxtimes	Oils/Grease	Quantity:	< quart
		Gasoline	Quantity:	
	\boxtimes	Hydraulic Fluid	Quantity:	<quart< td=""></quart<>
		Ethylene Glycol	Quantity:	
	\boxtimes	Cement	Type/Quantity:	18- 50 lb bags
	\boxtimes	Water	Source:	Fire Hydrant
	\boxtimes	Bentonite	Quantity:	6 – 40lb bags
		Fertilizer	Type/Quantity:	
		Other	Type/Quantity:	
В.		e, in detail, a plan for the containm		
	Genera	I policy is the drill rig will be ins	pected at the be	ginning of each day looking for
	problem	ns. If an uncontrolled release occurs	s then the impacte	ed soils will be containerized. Any
	free pro	duct will be further collected by ads	orbents. Impacte	d soils will be drummed, sampled,
	<u>analyze</u>	d and disposed of following State	and Federal guide	elines.
C.		e where equipment fueling/refuelingsupport truck will have a 50-gallor	•	Potuoling will take place off the
			i tank on-board.	Kerdening will take place on the
	tailings	pile on the adjacent access road.		

	ee Section 5	bw hazardous material spills/leaks will be handled: B
1844 - 144		
E.	Identify spil	l cleanup materials that will be kept on-site (check all that apply):
	\boxtimes	Bentonite clay or cat litter
	\boxtimes	Adsorbent pads, rolls, mats, socks, pillows, dikes, etc.
	\boxtimes	Drum or barrel for containing contaminated soil/adsorbent materials
		Other/list:
		Other/list:
		Other/list:
F.		owner/representative agrees to immediately notify the State of New Mexicolly of any spills of hazardous materials (see page 1 of this application for phone onotify):

SECTION 6 – GROUNDWATER/SURFACE WATER INFORMATION (§302.D.5)

۹.	Provide an estimate of depth to ground water and the total dissolved solids (TDS) concentration.
	Depth to groundwater (ft.): <u>Between 107 to 126 feet.(See Figure 3 and Table 1)</u> TDS concentration (mg/L): <u>TDS was not available, only selected metals; See Table 2</u>
	Describe the source of this information: City of Deming
В.	Will dewatering activities be conducted: ☐ Yes ☐ No
	If yes, please describe:
C.	Is groundwater anticipated to be encountered during exploration: Yes No
	If <u>YES</u> :
	Have you completed Form WR-07 (Application for permit to drill a well with no consumptive use of water) and mailed it to the District Office of the State Engineer? Yes
	Have you completed Form WD-08 (Well plugging plan of operations) and mailed it to the District Office of the State Engineer? Yes
	Attachment (copies of the completed WR-07 and WD-08 forms)
D.	Exploration Borehole Abandonment
	Dry Boreholes
	Dry hole abandonment (option 1): 100% bentonite pellets/chips (i.e. HOLEPLUG® manufactured by Baroid Industrial Products), dropped from surface then hydrated in place according to the manufacturer's recommendations, emplaced from total depth to

	within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.
	<u>Dry hole abandonment (option 2):</u> Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.
	Dry hole abandonment (option 3): Cement + 6% bentonite slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.
	<u>Dry hole abandonment (option 4):</u> High-density bentonite clay (≥ 20% active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.
	Dry hole abandonment (option 5): Other materials / describe and justify use:
We	et Boreholes
	Wet hole abandonment (option 1): Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.
	Wet hole abandonment (option 2): High-density bentonite clay (≥ 20% active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.
	Wet hole abandonment (option 3): Other sealing material approved by the Office of the State Engineer. Describe and include well plugging plan approval by the State Engineer:

υ.	and acknowledges that discharge of this water to a watercourse may be a violation of the Federal Clean Water Act: Yes No - Not applicable – Water will not be produced.
E.	Is any drilling proposed to occur <u>within the channel</u> of any perennial, intermittent, or ephemeral streams?
F.	Is any drilling anticipated to occur within 100 feet of any perennial, intermittent, or ephemeral streams?

SECTION 7 – RECLAMATION & OPERATION PLAN (§302.D.6 AND 302.I.K)

A. Salvage/Preservation of Topsoil

	agree	es to salvage and pres project ⊠ Yes □	erve all topsoil an	es occur in relation to this project, operator and topdressing for use in future reclamation of trading/blading is required for this phase of this
	Desc		e salvaged prior to	initiation of exploration activities (check all that
	⊠ N	/A – no construction w	ork will occur, the	refore no soil salvage is needed.
	☐ E	xcavated from drill pad	ls and stored at ea	ach drill pad
	☐ E	xcavated from road im	provements/const	truction and stored adjacent to road
	☐ E:	xcavated from mud/flui	id pits and storage	e at each pit
		ther, describe:		
	_			
В.	Eros	ion Control		
	Desc	cribe the best managen	nent practices tha	at will be implemented to control erosion:
		Silt fencing	Location:	Not Necessary/Not Applicable
		Straw waddles	Location:	Not Necessary/Not Applicable
		Straw bales	Location:	Not Necessary/Not Applicable
		Ditches/swales	Location:	Not Necessary/Not Applicable
		Berms/dikes/dams	Location:	Not Necessary/Not Applicable
		Sediment basins	Location:	Not Necessary/Not Applicable
		Other or N/A	Type/Location:	Not Necessary/Not Applicable

C.	Wildlife Protection / Noxious Weed Prevention					
	Will the perimeter of drill pits be fenced to prevent wildlife entrapment? Yes No - Note: Drill pits are not necessary for this drilling event.					
	Proposed pit perimeter fence material: Not Applicable					
	Describe how the pit perimeter fencing will be installed and secured (i.e., T-posts, wooden stakes, etc.): Not Applicable					
	Will at least one side of the interior of the drill pits be sloped at 3:1 as a ramp for wildlife escape? ☐ Yes ☒ No Note: Drill pits are not necessary for this drilling event.					
	If No, will another type of constructed escape ramp be installed? Describe: Not Applicable; not pit is required					
	Applicant/Owner/Operator commits to pressure-washing or steam-clean all equipment prior to entering the permit area:					
D.	Reclamation Details					
	Describe in general how re-contouring or re-establishment of the surface topography will be restored: Not Applicable; none will be required.					

	
Describe how the reclamation of portal ponds, roads and other disturbances will Not Applicable; none will be required.	,
Is seeding of the reclaimed areas propos If no, provide a justification as to why We are drilling six borings, each	_ _
below ground surface on a tailin	gs pile that has no significant vegetation. Our
impact to any vegetation is minim	al.
Plant mix to be used in the re-establishm	nent of vegetation:
☐ US Forest Service specified mix appl☐ BLM specified mix applied through br☐ Other:	ied through broadcast at their recommended rate roadcast at their recommended rate
Plant Name	Seeding Rate (lbs./acre)
20.000	

	Broadcast applied or drill-seeded: Broadcast Drill-seeded
	Scarification Methods (check all that apply): Primary tillage to greater than 6-inches depth of all constructed drill pads and roads Secondary tillage of all constructed drill pads and roads, and/or overland travel routes Chain drag or tire drag over seeds in areas used for overland travel Light raking of soil over seeds in areas used for overland travel None Other/describe:
	Mulch Use: ☐ Certified weed-free straw mulch will be placed over areas that have been tilled/disced or ripped at a rate of 2 tons per acre, and will be crimped in place ☐ No mulch is proposed
Ξ.	Reclamation Timeline
	Applicant/Owner/Operator commits to reclamation of the disturbed area as soon as possible following the completion or abandonment of the exploration operation, unless the disturbed area is included within a complete permit application for a new mining permit: Yes No
	Anticipated Start of Reclamation:
	 □ 0-30 days after completion of drilling □ 31-60 days after completion of drilling □ Other/specify: All activities shall be photographed. If any significant impact to the surface of the tailings pile is done then MOI/G3 will return the surface to the original conditions.

SECTION 8 — PERMIT FEES AND FINANCIAL ASSURANCE (§302.I.2 AND 5)

A.	Financial assurance must be posted with Mining and Minerals Division prior to approval of this application. The acceptable forms of financial assurance are surety bonds, letters of credit, and certificates of deposit. Provide an estimate of, and an instrument for, the proposed financial assurance required by Subpart 3.
	☐ Surety Bond ☐ Letter of Credit ☐ Cash Account / Certificate of Deposit
	Estimated amount of financial assurance:
	Or
	Applicant will provide the amount of financial assurance calculated by MMD.
B.	Attach the permit fees as determined pursuant to Subpart 2. The application fee for a minimal impact exploration permit is \$500.00.
	☐ Money Order/Cashier's Check☑ Check
	Check Number :233
	Financial Institution: <u>TD Bank</u>

SECTION 9 – CERTIFICATION REQUIREMENT (§302.1.3 & 4)

I certify that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals responsible for obtaining the information; I believe the submitted information is true, accurate, and complete. I agree to comply with the reclamation requirements set forth in this permit application and related correspondence, the New Mexico Mining Act and the Rules. Further, I certify that I am not in violation of any other obligation under the New Mexico Mining Act or the Rules adopted pursuant to that Act and I allow the Director to enter the permit area, without delay, for the purposes of conducting inspections during exploration and reclamation.

Signature of Permittee or Authorized Agent:

Name (type or print):

Paul Forshey

Title/Position:

President

Date: 8/16/2019

Attachments:

Letter of Intent with City of Deming, New Mexico

Figure 1: Site Location Map

Figure 2: Peru Mill Tailings Dump Soil Boring Location Map

Figure 3: Peru Mill Tailings Dump Groundwater Monitoring

Well Location Map

Scope of Work



BENNY L. JASSO, MAYOR

AARON SERA, ADMINISTRATOR

Phone (575) 546-8848 - Fax (575) 546-6442

E-MAIL: deming@cityofdeming.org - Website: www.cityofdeming.org
P.O. BOX 706. DEMING, NEW MEXICO 88031
POPULATION 14,000

July 11, 2019

Paul Forshey, President MOI Recovery Systems, LLC. 39 Leaf Circle Crossville, TN 38558

Re:

Letter of Intent

Peru Mill Tailings

Mr. Forshey:

This Letter of Intent (LOI) is meant to express the mutual intent of MOI Recovery Systems, LLC. and the City of Deming to allow MOI Recovery Systems, LLC. to perform testing and analysis on the soils/tailings located at Peru Mill in Deming NM. This letter will serve as a non-binding preliminary understanding between the two parties to allow testing of the soils/tailings, located within the attached description.

Description of Land where tailings are located - See attached.

Requirements – The City of Deming is the owner of 59.34 acres of land at the Peru Mill Industrial Park that is located within the City Limits. The City of Deming agrees to allow MOI Recovery Systems, LLC. to sample and analyze said tailings, as per NM Mining and Minerals Division and NMED requirements. All costs associated with testing, sampling, and remediation are the sole responsibility of MOI Recovery Systems, LLC. Any additional work contemplated, beyond testing and sampling, will require an additional agreement.

Aceptance of this Agreement is acknowledged by both parties below.

If any addition information is needed, please contact Jim Massengill, Public Works Director, at 575-546-8848.

Sincerely,

Jim Massengill

Public Works Director

Paul Forshey, President

MOI Recovery Systems, LLC.

Cc: Aaron Sera Archie Heddlesten Azucena Vargas Javier Reyes



Scale

Penu hill Katlings

Site

Deming beining

Directions:

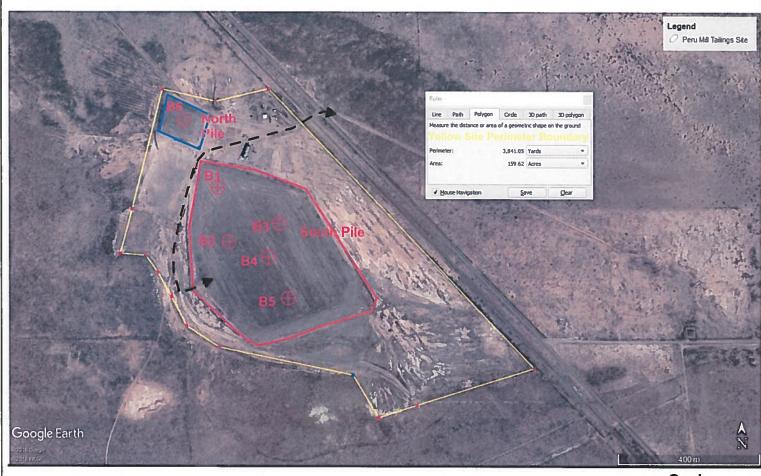
Exit off from I-10 west at the US 180 exit (to Silver City). Proceed north on Gold Ave to 2nd Street and turn left (west) on to 2nd Street which route 394. Proceed 1.2 miles west then turn right (north) continuing to follow route 394. Travel approximately 2.6 miles on 394 passing the closed Pinos Altos mill and paralleling a railroad line. At the 2.6 mile point the tailings pile will be observable to the west. We will be at the gate.

Route to Peru Mill Tailings from Gold Avenue

Project No.:	Project: Peru Mill Tailings Dump		Figure 1
Date: February 2019	Phase 1-Soil Boring Investigation	Ollent	ŭ
Drawn by: ETJ Reviewed by:	G3 Gauvreau GeoEnvironmental Group	MOI Recovery Systems, LLC	Site Locations Map

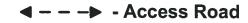


Soil Boring Location Map



Scale

⊕ - Soil Boring Locations



- North Tailings Pile



- South Tailings Pile



- Peru Mill Tailings Dump Site

Project No.: 17-022 Date: February 2019	Project: Deming Tailings Dump Phase 1-Soil Boring Investigation	Client:	Figure 2 Peru Mill Tailings Dump
Drawn by: ETJ Reviewed by: RSG	G3 Gauvreau GeoEnvironmental Group	MOI Recovery Systems, LLC	Soil Boring Location Map



Groundwater Monitoring Well Location Map



Scale not available

⊕ - Groundwater Monitoring Well Locations Map



Project No.: 17-022	Project: Deming Tailings Dump	Olit-	Figure 3
Date: April 2019	Phase 1-Soil Boring Investigation	Client:	Peru Mill Tailings Dump
Drawn by: ETJ Reviewed by: RSG	G3 Gauvreau GeoEnvironmental Group	MOI Recovery Systems, LLC	Groundwater Monitoring

PERU HLL MILL - DEMING, NEW MEXICO **GROUNDWATER ELEVATION DATA** TABLE 1

WELLID	GAUGING DATE	WELLHEAD	MEASURED DEPTH	DEPTH TO GROUNDWATER	GROUNDWATER	PURGE VOLUME
	I /O/W	(FEET)	(FEET)	(FEET BELOW TOC)	ELEVATION (FEET)	(GALLONS)
10/1/01	9/20/2001	4405.05	159.55	119.05	4286.00	81.6
TO-00101	5/2/2002	4405.05	159.55	121.12	4283.93	19.6
70 /9/4	9/20/2001	4398.49	169.80	115.67	4282.82	104
20-AA IAI	5/2/2002	4398.49	169.80	116.64	4281.85	27.1
00/9/02	9/20/2001	4410.78	166.66	124.81	4285.97	40.8
CO-00101	5/2/2002	4410.78	166.66	126.26	4284.52	27.2
70/8/04	9/20/2001	4389.44	156.00	108.66	4280.78	93.6
NIVE-0-4	5/2/2002	4389.44	156.00	107.63	4281.81	25.5

Elevations are given in feet above mean sea level Wellhead = top of PVC casing Notes:

ID = identification

n/a = not available

TOC = top of PVC casing M/D/Y = month/day/year

Source: City of Deming

GROUNDWATER SAMPLE RESULTS, METALS PERU HILL MILL - DEMING, NEW MEXICO TABLE 2

GROUNDWATER SAMPLE								Analyte (mg/L)	ng/L)					
NUMBER	Date													
	Collected	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Cyanide	Lead	Mercury	Selenium	Silver	Uranium	Zinc
NMWQCC Standard (mg/L)		0.1	1.0	4.0**	0.01	0.05	1.0	0.2	0.05	0.002	0.05	0.05	5.0	10.0*
70	9/20/2001	<0.01	0.069	NT	<0.002	0.014JR	0.064^	<0.01	<0.0051	<0.0002	<0.01	<0.005	<0.01	NT
TO-01	5/2/2002	<0.010	0.049	<0.003	<0.002	<0.006	<0.006	LN	<0.005	0.0035	<0.010	NT	NT	0.022
010	9/20/2001	<0.01	0.057	NT	<0.002	0.008R	0.054J^	<0.01	0.005	<0.0002	<0.01	<0.005	<0.01	NT
OTO-MINI	5/2/2002	<0.010	0.049	<0.003	<0.002	<0.006	<0.006	NT	<0.005	<0.0002	<0.010	NT	NT	0.016
MAN 03	9/20/2001	<0.01	0.062	NT	<0.002	0.00GR	0.003R	<0.01	<0.005	<0.0004	<0.01	<0.005	<0.01	NT
ZO-WIVI	5/2/2002	<0.010	0.04	<0.003	<0.002	<0.006	>0.006	NT	<0.005	<0.0002	<0.010	NT	NT	0.014
MANA 03(BC 03)	9/20/2001	<0.01	0.098	NT	<0.002	>0.006	0.007R	<0.01	<0.005	<0.0002	<0.01	<0.005	<0.01	TN
1414V-03(NG-02)	5/2/2002	<0.010	0.061	<0.003	<0.002	900'0>	<0.006	NT	0.015	<0.0002	<0.010	LN	NT	0.015
20,207	9/20/2001	<0.01	0.101	NT	<0.002	0.014	0.019J^	<0.01	<0.005	0.001	<0.01	<0.005	<0.01	NT
+O-MM	5/2/2002	<0.010	0.062	<0.003	<0.002	900'0>	<0.006	NT	<0.005	<0.0002	<0.010	NT	NT	0.008

NMWQCC = Ne Mexico Water Quality Control Commission *other standard for domestic water supply

**Safe Drinking Water Act - 1974

mg/L = milligram(s) per liter

D = duplicate samle

R = value unusable due to equipmet contamination

J = estimated value due to poor precision, relative percent difference btween sample and duplicate above 20% QAPP standard

I^ = value estimated high due to equipment contamination, actual value may be lower than reported by the laboratory

QAPP = Quality Assurance Project Plan

NT = not tested

Source: City of Deming



February 28, 2019

State of New Mexico
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Dear Sir/Madam:

Re: Peru Mill Tailings Dump Phase I Investigation

Gauvreau GeoEnvironment Group Inc. (G3) is pleased to submit the following Scope of Work to MOI Recovery Systems (MOI) to perform an initial site investigation employing a limited drilling and sampling plan at Peru Mill Tailings Dump (the PMTD Site) located in the Peru Mill Industrial Park, approximately 4 miles north of Deming, New Mexico. This first phase is designed to evaluate the tailings dump subsurface conditions (tailing thickness, material grain size, texture, visual mineralogy, etc.), and lateral and vertical continuity of potential marketable commodities. The results of this investigation goal is determine the presences of marketable commodities and guide a complete, bankable study if marketable commodities exists.

The following Scope of Work presents the background, project preparation, field activities and reporting for this initial phase.

BACKGROUND

Peru Mill Tailings Dump

Peru Mill Industrial Park site is a 1,420-acre property that once housed a mill that processed zinc sulfide ore. The PMTD Site is a 160-acre property as shown on Figure 1. There are two tailings piles on the Site as shown on Figure 2. The larger southern tailings pile area is approximately 54 acres and the northern tailings pile area is 5 acres.

The Peru Mill was built in 1928 and operated until 1967. The ore processed at the site was crushed, ground, mixed with water, and pumped to flotation cells. Various chemicals were then added to separate the minerals from the mixture. The remaining ore and slurry were pumped to a tailings impoundment resulting in a tailings pile located on the site.

At an undefined time, the constituents for the liquid tailings failed, which caused a spill which eliminated the vegetation cap on top of the tailings pile and this caused spread tailings over an

Gauvreau GeoEnvironmental Group Inc. 420 Westview Drive Sudbury, Ontario P3C 3M5 Canada

Tel: 705.682.3333 Cell: 705.562.2149 area east of the original pile and beyond site boundaries. The tailings were eventually gathered and placed back onto the tailings dump. When the remediation of the site was completed, the City of Deming annexed the property into the city limits and zoned it for industrial use. Currently the park is zoned D-Industrial, which allows for the construction of a wide range of manufacturing and industrial applications.

SCOPE OF SERVICES

The scope of work for this project is divided into four primary tasks:

- 1. Project preparation
 - a. Health & Safety Plan
 - b. Schedule Driller and Laboratory
 - c. Complete Minimal Impact Exploration Operations Permit
- 2. Field Work
 - a. Advancement of soil borings and sampling at Peru Mill Tailings Dump
 - b. Laboratory Analysis of samples
- 3. Data Analysis
- 4. Soil Boring Sampling Report

Project Preparation

Upon receipt of an executed Project Authorization to Proceed and the project retainer G3 will submit a completed Minimal Impact Exploration Operations Permit application form for MOI's review. MOI will be required to complete various minor parts of the permit also. Upon completion MOI will submit the permit application to the New Mexico Energy, Minerals and Natural Resources Department.

Prior to initiating any field work, G3 will prepare a site-specific health and safety plan. All site working personnel and visitors will be required to read, sign and act in accordance to this site-specific health and safety plan.

In addition, G3 will prepare and organize the drilling contractor and analytical laboratory.

Field Work

Soil Boring Installation and Sampling - PMTD Site

This task consists of drilling and sampling 6 soil borings to maximum depth of 35 feet below ground surface (fbgs) or three feet into the native soils below the tailings dump. Final borehole depths may be adjusted depending on the actual subsurface conditions encountered at the time of drilling. The drilling will be conducted using a track or truck mounted hollow stem auger drill rig. The soil

2

samples will be collected using a standard 24-inch split spoon sampler driven by a 140-pound sliding hammer as part of the Standard Penetration Test (SPT). Split spoon samples (24 inches in length) will be collected continuously from ground surface to the bottom of the borehole. Groundwater will not be intersected during this drilling event. The following information will be recorded in each interval:

- Number of blows used to drive the sampler into the ground;
- soil color, grain size, mineral lithology, texture and moisture content; and
- any visual evidence of mineralization.

The soils will be logged and described according to the Unified Soil Classification System (USCS) and will be recorded in a field log book. Soil samples will be selected for laboratory analysis based upon soil types, visible minerals, and color. The borings will be backfilled using a bentonite/cement mix following State of New Mexico Mines & Minerals guidelines.

Laboratory Analyses

Soil samples selected for laboratory analysis will be placed in the appropriate sample ware, labeled, sealed and placed in a self-sealing (Zip-locTM), plastic bag. A chain of custody documentation will be completed for these samples.

Each sample will be analyzed by the laboratory for:

- Total metals (ICP method)
- Precious metals (AA or fire assay)
- Platinum Group Elements
- Rare Earth Elements
- Anion chemistry (sulfate, sulfide, chlorides, nitrates, nitrites)
- pH
- moisture
- Grain size sieve analysis

The sample analysis will include results for both the tailings and undisturbed soils (~3' below tailings). For this proposal G3 assumes 20 samples per boring will be submitted for laboratory analysis including appropriate QA/QC samples. One hundred and twenty (120) samples are budgeted for analysis.

The tailings anticipated lithology is clay to fine sands. The tailings is covered sand/gravels (potentially <3") mixture. The cover's thickness will be measured but not sampled. Based on our current understanding of subsurface conditions, G3 anticipates that the drilling and sampling will take approximately three days to complete.

G3 assumes that MOI will contract all laboratory services directly. G3 will work with the laboratory to coordinate the delivery of the sample ware and return delivery of the collected samples to the laboratory. Upon the completion of the laboratory analysis G3 will receive the analytical data directly from the laboratory. Following a review G3 will send copies of this analytical data to MOI.

G3 further assumes that MOI will also contract all drilling services directly. G3 will maintain a site personnel log. This log will identify daily site activities, on-site personnel and visitors.

Data Analysis

Upon completion of the field activities G3 will complete a soil boring log for each boring. Soils will be described in accordance with the USCS soil classification system. This exercise along with review of field observations will aid in identifying vertical and horizontal lithologic and mineralogical trends in the subsurface.

Upon receipt of the laboratory results the data will be tabulated and organized to further identify vertical and horizontal lithologic and mineralogical trends in the subsurface. The cation and anion metallurgical chemistry will be evaluated a G3 metallurgist for various process and concentration methods that would in turn increase the value of the tailings.

Reports

At the completion of the field tasks and data evaluation, G3 will prepare a soil boring results report that summarizes the field sampling activities and analytical results. G3 will receive, validate and tabulate the laboratory data. The Report will be prepared for specifically for MOI. The report will be confidential. The report will be a summary of the observations obtained during the soil boring drilling activities, which will include, but are not limited to the following:

- Site location and description;
- Drawing(s) showing the site and sampling locations;
- Investigation methods;
- Observed soil type(s) follow general accordance with the USCS soil classification system;
- Observed soil conditions;
- Soil Boring Logs;
- Soil sampling methods;
- Chain-of-Custody
- pH measures collected during soil sampling; and,
- Analytical Laboratory Results and Chain of Custodies.

In addition, a minimum six iso concentration maps that will present the base and precious metal concentrations at five-foot intervals to the bottom of each boring will be generated for the Peru Mill Tailings Dump.

Schedule

G3 is prepared to initiate work on this project immediately upon receipt of an executed Project Authorization to Proceed. Upon approval from the New Mexico Energy, Minerals and Natural Resources Department G3 estimates that it will require six weeks to complete this effort.

Closure

G3 trusts this scope of work is consistent with the State of New Mexico guidelines and regulations for operating on a property like the Peru Mill Tailings Pile. If any questions or concerns regarding your understanding of this initial assessment then please contact MOI (Paul Forshey – see permit application) or myself.

Yours Truly,

E. Terry Jensen, P.G. Principal Consultant

E. Terry Jansen

Addendum I - Figures