

State of Alaska

Application for Permits to Mine in Alaska

Amendment

Date: 5/12/26Amendment # 1APMA: F9315

Please describe your proposed amendment and attach all required forms from the APMA application.

Adding property owners: Austin Jones, Jennifer Jones

Adding ADL: 740228

STATE OF ALASKA

2025

Application for Permits to Mine in Alaska (APMA)

☒ Single Year ☐ Multi-year Start: _____ Finish: _____ APMA Number (A/F/J, Year, ****) 9315

What type activity are you planning to perform? *REQUIRED (1) ☐ Suction Dredging/Reclamation ☐ Reclamation Only ☐ Placer Mining/ Reclamation ☐ Access ☒ Hardrock Exploration/ Reclamation	Surface estate of mineral properties: *REQUIRED (2) ☒ State (General) ☐ State (Mental Health) ☐ Federal ☐ Private ☐ City or Borough	
Check All That Apply: ☒ Mineral Property Owner ☐ Lessee ☒ Operator *Required (3) Name: <u>DAVID LAJACK</u> Primary Phone Number: <u>520-444-6145</u> Address: <u>P.O. BOX 42831</u> Secondary Phone Number: _____ <u>TUCSON, AZ 85733</u> Email: <u>djlajack@aol.com</u> Click here for the Department of Commerce Link Alaska Business/Corporation Entity# _____ Registered Agent (Corp./LLC/LP) _____		
Check All That Apply: ☒ Mineral Property Owner ☐ Lessee ☐ Operator *Required (4) Name: <u>AUSTIN JONES</u> Primary Phone Number: <u>907-949-6125</u> Address: <u>P.O. BOX 527</u> Secondary Phone Number: _____ <u>PALMER, AK 99645</u> Email: <u>ajonesak@yahoo.com</u> Alaska Business/Corporation Entity# _____ Registered Agent (Corp./LLC/LP) _____		
Check All That Apply: ☒ Mineral Property Owner ☐ Lessee ☐ Operator *Required (5) Name: <u>JENNIFER JONES</u> Primary Phone Number: <u>907-949-6125</u> Address: <u>P.O. BOX 527</u> Secondary Phone Number: _____ <u>PALMER, AK 99645</u> Email: <u>ajonesak@yahoo.com</u> Alaska Business/Corporation Entity# _____ Registered Agent (Corp./LLC/LP) _____		
Check All That Apply: ☐ Mineral Property Owner ☐ Lessee ☐ Operator *Required (6) Name: _____ Primary Phone Number: _____ Address: <u>NA</u> Secondary Phone Number: _____ Email: _____ Attach a separate sheet for additional contacts Alaska Business/Corporation Entity# _____ Registered Agent (Corp./LLC/LP) _____		
Project Name If Applicable: (7) <u>AJ</u>	Average Number of Workers: *REQUIRED (8) <u>3 (2-4)</u>	Start-Up/Shut Down: (Month/Day) (9) <u>JULY 10</u> to <u>SEPT. 30</u>
Mining District: *REQUIRED (10) <u>CAPE NOME</u>	Applicable USGS Map(s): *REQUIRED (11) <u>NOME D-1, D-2</u>	On What Stream Is This Activity? (12) <u>NOME R, DICKENS CRK</u>
Legal Description of mineral properties to be worked (MTRS) *REQUIRED (13) Example: Fairbanks Meridian Township 001N Range 003E Sections 15, 16, and 21 or F 001N 003E Sec. 15, 16, and 21 <u>KRM 007S 033W SEC 24</u>		Internal Use Only:
Internal Use Only: Date Application Received Complete: _____ Adjudicator: _____ LAS Entry: _____		

APMA 9315 Active Area



This map was created on 7/31/2026 by the Alaska Department of Natural Resources as a courtesy to supplement the application received. This map displays a graphical illustration only. Source documents remain the official record.

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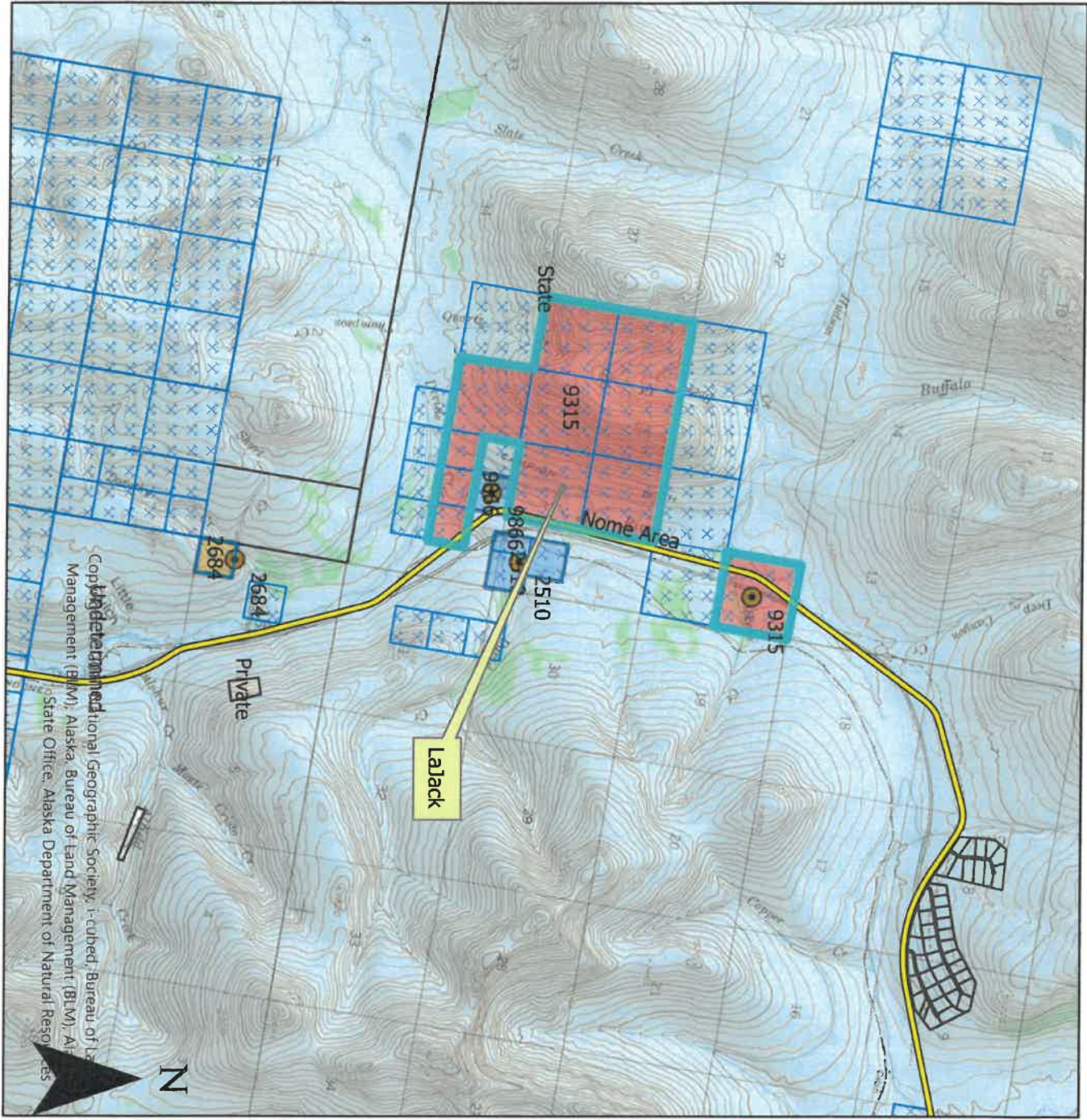
Scale: 1:63,360

Legend

- | | | |
|---------------------------|---------------------------------------|----------------------------|
| APMA_Type | BLM AK Federal Mining Claims (Active) | State Mining Claim Active |
| APMA_Project | Roads AKDOT | State Mining Claim Active |
| Mechanical Placer Mining | State Mining Claim Active | State Mining Claim Active |
| Hardrock Exploration | State Mining Claim Pending | State Mining Claim Pending |
| Suction Dredge / Dredging | State Mining Claim Pending | State Mining Claim Pending |
| Access Route | | |

0 0.75 1.5 Miles

Center: 165°15'26"W 64°50'59"N



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MV_ST_MINING

Source: Alaska Department of Natural Resources, Information Resource Management

Case ID	Case Status Description	Case Type Description	Claim Name	Customer Name	Notepost Date	Special Code Description	Total Acres
ADL 720519	Active (35)	Mining Claim (713)	L 4	Lajack David J	07-MAR-15	Mining Claim (MC)	160
ADL 720520	Active (35)	Mining Claim (713)	L 5	Lajack David J	07-MAR-15	Mining Claim (MC)	160
ADL 720521	Active (35)	Mining Claim (713)	L 6	Lajack David J	07-MAR-15	Mining Claim (MC)	160
ADL 720522	Active (35)	Mining Claim (713)	L 7	Lajack David J	07-MAR-15	Mining Claim (MC)	160
ADL 720523	Active (35)	Mining Claim (713)	L 8	Lajack David J	07-MAR-15	Mining Claim (MC)	160
ADL 720524	Active (35)	Mining Claim (713)	L 9	Lajack David J	07-MAR-15	Mining Claim (MC)	160
ADL 720525	Active (35)	Mining Claim (713)	L 10	Lajack David J	07-MAR-15	Mining Claim (MC)	40
ADL 720526	Active (35)	Mining Claim (713)	L 12	Lajack David J	07-MAR-15	Mining Claim (MC)	160
ADL 725063	Active (35)	Mining Claim (713)	L101	Lajack David J	02-SEP-17	Mining Claim (MC)	40
ADL 725064	Active (35)	Mining Claim (713)	L102	Lajack David J	02-SEP-17	Mining Claim (MC)	40

END OF REPORT

Report Information

Source ID	60						
Source Name	MV_ST_MINING						
Source Description							
Run Date and Time	07 / 31 / 2026 03:02:58 AKDT						
Record Count	12						

SQL Statement

CASE_ID,CASE_STATUS,CASE_STATUS_DESCRPTI							
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MINERAL PROPERTIES LIST

(14)

Properties that have previous mining disturbance requiring reclamation, active mining/exploration activities, surface improvements, location of a camp, or provides access through the claim block for mining activities. DO NOT LIST CLAIMS UNLESS LISTED ACTIVITIES ARE ASSOCIATED WITH THEM.

If requesting more than 12 claims, are additional sheets with ADL/BLM/USMS and legal descriptions attached? ☐ Yes ☐ No

Are any of these mineral properties an Upland or Offshore Mining Lease? Yes ☐ No ☐

	ADL/BLM/USMS #	PROPERTY NAME		ADL/BLM/USMS #	PROPERTY NAME
1.	740228	AJ1	7.		
2.			8.		
3.			9.		
4.			10.		
5.			11.		
6.			12.		

INVENTORY OF EQUIPMENT

(15)

List all mechanized equipment to be used (make, model, type, size, purpose, and number of each, including pumps). Attach additional sheets as necessary. If you are transporting on a trailer to the claim block, include the trailer size.

Check One:

	Make, Model, Type, Size, Purpose of Equipment or Pump	Quantity of this type	Located on the claim block?	Transporting to claim block?
1.	HONDA FOREMAN ATV (TRANSPORTATION)	1-3		X
2.	LJACK D-1 CORE DRILL ON TRACKS (6.5' x 8' BASE)	1		X
3.	3/4 TON, 1986 DODGE TRUCK ZWD	1		X
4.	KOHLER, 12 HP PUMP (WATER, MUD MIXING)	2		X
5.				
6.				
7.				
8.				

ACCESS TO THE CLAIM BLOCK

(16)

Access across surface estates not owned by the State requires approval of the managing agency. It is the responsibility of the applicant to contact the owners of private property to obtain authorization for access.

When are you going to be transporting equipment and/or traveling to and from the claim block? ☐ Winter ☒ Summer

Access to the claim block crosses what type of land(s)?

State ☒ City/Borough ☐ Federal ☐ Private ☐

Indicate type(s) Existing Access to the claim block:

☒ All season Road (These are public easements maintained by municipal, borough, private, or state funds for year round use). List road(s) to claim block: NOME-TAYLOR HIGHWAY

☐ Existing Route or a RST/ RS 2477 Easement with a mineral base surface.
If the RST/ RS 2477 Easement(s) has a State of Alaska number, please list: _____

☐ Navigable Waterway

☐ Aircraft Supported

Indicate type(s) of access to be constructed within the claim block for development of the mineral resource:

Road(s) ☐ Helicopter Pad ☐ Airstrip ☐ No Improvements or Construction Proposed ☒

ACCESS TO THE CLAIM BLOCK, CONTINUED

(16)

Please describe your construction activities and include mitigation measures to protect water, fish and game resources. Include a time frame for final closure and a reclamation plan for access within the claim block. Attach additional pages if necessary:

NO ROAD OR DRILL PAD CONSTRUCTION NEEDED. DRILL WILL BE WALKED ACROSS TUNDRA TO DRILL SITES UNDER ITS OWN POWER ON TRACKS (800-1000') FROM NOME-TAYLOR HWY. NO STREAM CROSSINGS. ONE 12-HOUR DRILL SHIFT / DAY.

A access map **MUST** be submitted with your application. Topographic maps at a scale of 1"=1 mile must clearly indicate the proposed access route from start to finish, location of proposed construction activities, and appropriate legal descriptions (township and range) on each map sheet. Paper size should be limited to 8 1/2" x 11". Do not tape maps together.

Name the individual(s) or business(es) who will be conducting the travel:

DAVID LAJACK, DANIEL LAJACK (ALSO ONE OR TWO LABORERS)

List all equipment and vehicles conducting travel to/from the claim block, including vehicle weights and season of travel:

LAJACK CORE DRILL (APPROX 7500 lbs), DRILL IS SELF-PROPELLED USING 100 HP DUETZ DIESEL ENGINE @ 1-2 mph. HONDA ATV'S WILL TRANSPORT WORKERS & PULL SMALL TRAILERS WITH DRILL RODS & PUMP & NECESSARY TOOLS. ONE 3/4 TON 1986 DODGE TRUCK WILL BE USED TO & FROM NOME TO TAKE CORE OFF THE PROPERTY, TRANSPORT WORKERS & GENERAL SUPPLIES. NO ROAD OR PAD CONSTRUCTION NEEDED. NO CAMP OR CAMPING ON CLAIM.

State the average total miles traveled in one round trip: 0.5 (FOR DRILL IN-OUT) State the number of trips proposed: 25-50 ATVS

State the start and end date(s) or period(s) of proposed travel: JULY 10 - SEPT. 30

Select the following terrain type(s) that best describes your route of travel: ☐ Wetlands ☒ Tundra

☐ Uplands ☐ Rivers or Other Water Bodies ☐ Wooded Areas (6" Trees or larger at breast height)

Will water be needed to construct ramps/ ice bridges? ☐ Yes ☒ No

If Yes, estimated quantity of water will be used: NA gallons/day Water Source: NA

Are you transporting fuel? ☒ Yes ☐ No

Maximum volume of fuel (in gallons) that is being transported by one vehicle and any trailers or sleds it is towing:

20 GALLONS

Are you transporting other hazardous substances? ☐ Yes ☒ No If "Yes" indicate type and amount (e.g. gallons, lbs, psi):

How are petroleum products contained? (i.e., drums, bladders, steel tanks, etc.) Indicate size of containers:

5-6 GALLON PLASTIC OR METAL JERRY JUGS

How are petroleum products being transported? (i.e., skid-mounted tank, trailer, 55 gallon drums on skid, etc.)

ON/IN TRAILOR PULLED BY ATV

TEMPORARY STRUCTURES/FACILITIES

(18)

Is a camp or placement of any temporary structure requested? ☐ Yes ☒ No

If "No", Please explain: CAMP AT DIVIDE ~~APMA~~ APMA 9315

Describe all temporary improvements (including buildings, tent platforms, out-buildings, etc., including their quantity, dimensions and building type.

NONE

What type of property is the camp located on? ☒ State ☐ Federal ☐ Private (Patented) ☐ City or Borough ☐ MHTL

If camp is on private land, provide location:

Proposed perimeter dimensions of camp: Length (feet) Width (feet).

☐ Request use of existing facilities, list ADL(s):

☐ Year-Round ☐ Seasonal, from Approx. to , annually.

☐ Request to place new temporary structures, list ADL(s):

☐ Year-Round ☐ Seasonal, from Approx. to , annually.

	Temporary New Structures Quantity	Existing Structure Quantity	Use (Shop, office, etc.)	Dimensions (ft x ft)	Dimensions (ft x ft)	Dimensions (ft x ft)
Framed						
Tent						
Trailer						
Platforms						
Out-Buildings						
Other:						

* If Required, list any other structures on a separate sheet, include dimensions, use, and type.

Grey Water and Biological Waste - Describe storage and proposed method of disposal (e.g., leach line, septic, holding tank, or pit privy):

PIT PRIVY FOR WORKERS

Solid Waste - Describe the types of waste that will be generated on-site including garbage, scrap metal, industrial; and describe its disposal method. Note: For on-site disposal on state land, additional authorization is required by DEC and DNR outside of the APMA.

ALL SOLID WASTE WILL BE COLLECTED IN PLASTIC GARBAGE BAGS AND DISPOSED OF IN NOME.

What is the distance grey water, biological, and solid waste will be located from the ordinary high water mark of the nearest freshwater body (lake, stream, river, rivulet, etc.), or the mean high water mark of a saltwater body: 1000'

Will there be any use of animals (horses, dogs, goats/sheep, etc)? ☐ Yes ☒ No

Required: Dismantle and Removal for Structures: Provide a plan for dismantling and removing structures, equipment, and storage tanks. Include the method and timeline for restoration of all location areas.

ALL EQUIPMENT WILL BE REMOVED UPON COMPLETION OF EACH SEASON OF WORK. NOTHING WILL BE LEFT ON PROPERTY. DRILL HOLES WILL BE PLOTTED UPON COMPLETION OF EACH HOLE. NO DOZER, OR BACKHOE-EXCAVATOR WORK NEEDED OR DONE. AREA OF DRILL WILL BE ESSENTIALLY UNDESTRUCTURED. NO STRUCTURES PLACED ON CLAIM. ONLY EQUIPMENT USED FOR DRILLING WILL BE ON PROPERTY THEN REMOVED UPON COMPLETION OF WORK IN 2026.

(19)

Estimated cubic yards processed annually:

☐ Mechanical Dredge (e.g., excavator or clam-shell)

List all suction and mechanical dredges. If information is not applicable, write "N/A." Attach extra sheet if necessary.

	Dredge 1		Dredge 2		Dredge 3	
Vessel ID (Name or Number)						
Vessel Dimensions						
Suction Dredge Intake Nozzle Diameter / Pump Size	Inches:	HP:	Inches:	HP:	Inches:	HP:
Mechanical Dredge Bucket Volume	Cubic Yards:		Cubic Yards:		Cubic Yards:	
Processing Rate	Yds. ³ /Hr.:		Yds. ³ /Hr.:		Yds. ³ /Hr.:	
Wastewater Discharge Rate	GPM:		GPM:		GPM:	
Maximum Water Depth	Feet:		Feet:		Feet:	
Average Daily Operating Hours						
Operation on Sea Ice (Yes/No)	Yes ☐ / No ☐		Yes ☐ No ☐		Yes ☐ / No ☐	
Vessel Registration # / State	#:	State:	#:	State:	#:	State:

☐ Offshore / Salt Water☐ Pond connected to stream

☐ Stream

☐ Pond isolated from stream

☐ Mine cut isolated from stream

(20)

Please provide topographic maps showing drilling and/or test pit locations that corresponds with the table below. Maps should (at minimum) have labeled Mineral Properties and labeled locations of proposed activities.

Methodology and reclamation of exploration activities must be described in the placer narrative.

Test Pits: ☒ Yes ☐ No

How long will the test pit be open if not converted into an active mine cut?

Estimated number of pits to be excavated:

Average Size: Length: _____ Ft. Width: _____ Ft. Depth: _____ Ft.

Placer Drilling: ☐ Yes ☒ No

Total number of holes to be drilled:

Type of drill(s) used:

Drilling and Test Pit Identification and Mineral Property Information

Trench/Hole ID on Map

ADL/BLM/USMS NUMBER

[illegible]

EXPLOSIVES

(21)

Will explosives be used? ☐ Yes ☒ No If "Yes", Indicate: Type: _____ Amount: _____
 Explosive Handler's Certification/ATF Permit Numbers: NA
 Describe your blast design, blast schedule, and explosives handling plan in the project narrative. NA

WATER ENTRAPMENT

(22)

Will you be capturing water for use in mining operations? ☐ Yes ☒ No The entrapment is: ☐ Existing ☐ To be constructed
 Where does the water have a potential to being stored? ☐ Above ground ☐ Below ground level ☐ Both
 If above ground, what is the Length _____ ft Height _____ ft Width at crest _____ ft Width at base _____ ft of the berm(s)
 What is the purpose of the water use? ☐ Makeup water pond ☐ Settling/recycle pond ☐ Stream diversion Other FOR CORE DRILL
 How long do you expect for the entrapment to be in place ☐ Permanent ☐ 1-3 years ☐ 3-5 years ☐ 5 or more
CATTLE TANK 6' x 2' x 2.5'
 If above ground, how many acre-feet is the maximum capacity of water stored from ground level to crest of the berm? _____
 Total volume in acre-feet = surface area (acres) x average depth (feet) (1 acre = 43,560 square feet)
 Where is the topographic location of the water storage area? ☒ Valley bottom ☐ Hillside
 If on a hillside, Approximately how many feet is the water storage above the valley floor _____ ft

IN-STREAM ACTIVITIES and STREAM CROSSINGS

(23)

List any equipment (refer to Box 15 if necessary) that will be crossing streams (including low-water crossings along established trails/roads) or used in any natural waterbody or used in-stream:

NO STREAM CROSSING

List all stream crossings, suction dredge or pump locations, including unnamed streams.

	Stream Name/ Water Source	NAD 83 Datum (approximate) Coordinates can be obtained using Alaska Mapper http://dnr.alaska.gov/mapper/controller		MTRSC ¼ ¼ Ex: F001S001N01 SWSW	Check boxes to indicate type(s) of activity		
		Latitude ddd.mmm	Longitude -ddd.mmm		Crossing	Dredging	Water Intake
1.	DICKENS CRK	64° 52.23' N	165° 15.106' E	KRM 0075 033W SE NE	☐	☐	☒
2.	UNNAMED POND	64° 52.357' N	165° 34.28' E	KRM 0075 033W SE NE	☐	☐	☒
3.	UNNAMED POND	64° 52.301' N	165° 15.480' E	KRM 0075 033W SE NE	☐	☐	☒
4.					☐	☐	☐
5.					☐	☐	☐

If in-stream activities and/or stream crossings are requested at more than 5 locations, please provide tabular data format.

WATER USE AUTHORIZATIONS

If water is impounded, withdrawn, or diverted, the ADNR Water Resources Section needs to review the water sources and water uses to determine if a water use authorization is needed. Water usage (including from 100% recycle pond systems) may require approval by issuing a Temporary Water Use Authorization (TWUA) or a Water Right. Information provided below will be used to determine the quantity of water that you may be authorized to use for your mining operation. When estimating water quantities, please estimate withdrawal amounts typical of a dry summer and provide the maximum quantity that you may withdraw from a particular source (e.g., stream, pond, groundwater, etc.) in a season. A TWUA application may be initiated from this APMA, unless a Water Right is requested. Please contact the ADNR, Water Resources Section at telephone number (907) 451-2790 for more information.

- Is there a current Water Right within the proposed mineral property boundary? Yes ☐ No ☒
- If yes, provide the LAS or ADL Water Right Case File number:
- What are the months of water use needed (for example May 1st through October 31st)? JULY 15 - SEPT 30

Name & Location of Water Source(s):

- If water is required **to fill** or **to maintain** water in the recycle/settling pond system check the applicable box (table below in part A) for each water source used. Please note that a recycle/settling pond system is a water source (5 sources per TWUA). Stormwater from rainfall or snowmelt do not require water use authorizations.
- Identify each water source and its geographic location using MTRS. Include Lat/Long coordinates if available.

Example: Finger Lake: Fairbanks Meridian, Township 3 North, Range 3 West, Section 20.

MTRS: F3N3W 20

Lat/Long: 65° 4' 15" N; 148° 12' 43" W

A. Name & Location of Water Source(s). No more than 5 water sources per TWUA. Attach list of additional sources if needed. A \$450 fee is associated with each TWUA. The APMA paperwork is all that is needed to apply for TWUAs. For example, if there are 20 sources listed in the APMA, 4 TWUA case files will be generated. When submitting an APMA, a separate Application for Temporary use of Water form is not needed.

Provide the geographic name or locally know name of water Source. (Recycle/settling ponds, creek, stream, well, etc.) If requesting a stream reach, clearly identify the entire stream reach on a legible map.	Meridian	Township	Range	Section(s)	Start-Up Water and/or Make-Up Water? Check each applicable box.			
Example: Unnamed Creek	F	3N	3W	20	Start-Up	☒	Make-Up	☒
1. <u>DICKEN CRK.</u> <u>(POSSIBLE)</u>	<u>KRM</u>	<u>75</u>	<u>33W</u>	<u>24</u>	Start-Up	☒	Make-Up	☐
	Latitude: <u>64° 52' 14" N</u>			Longitude: <u>-165° 15' 6.3"</u>				
2. <u>UNNAMED POND 1</u> <u>(POSSIBLE)</u>	<u>KRM</u>	<u>75</u>	<u>33W</u>	<u>24</u>	Start-Up	☒	Make-Up	☐
	Latitude: <u>64° 52' 21.5"</u>			Longitude: <u>-165° 15' 20.6"</u>				
3. <u>UNNAMED POND 2</u> <u>(POSSIBLE)</u>	<u>KRM</u>	<u>75</u>	<u>33W</u>	<u>24</u>	Start-Up	☒	Make-Up	☐
	Latitude: <u>64° 52' 18.1"</u>			Longitude: <u>-165° 15' 28.2"</u>				
4.					Start-Up	☐	Make-Up	☐
	Latitude:			Longitude:				
5.					Start-Up	☐	Make-Up	☐
	Latitude:			Longitude:				

WATER USE AUTHORIZATIONS CONTINUED

(24)

E. Exploration Activities A map of your requested drilling water sources is required with the following information: -MTRS sections, -stream reaches or other water sources (please label, including take points if known) -and drill hole locations.	Is Water Needed for Exploration Trenching or Drilling?	Withdrawal Rate (gpm/pump)	Number of Pumps	Hours per Day	Days per Month	Source(s) of Water Well, Haul, Stream, Spring Lake, etc. Source(s) will count towards the 5 sources identified in Section A.
	YES	10g/min	1	10	10-20	STREAM OR POND (DICKENS CREEK)

NA

D. SUCTION DREDGING.

If suction dredging activity is occurring, please ensure that you have completed the dredge table in Section (19) MINING METHOD.

TIMBER CLEARING AND USE
(Operations on State Lands Only)

(25)

Pursuant to AS 38.05.255, timber from land open to mining without lease, except "timberland", may be used by a mining claimant or prospecting site locator for the mining or development of the location or adjacent claims under common ownership. Timber not used for the mining or development of the location or adjacent locations, that is removed from the operation must be acquired via timber sale or written letter of non-objection from the Alaska Division of Forestry.

For questions on the appropriate use of timber on federal mining claims, contact your local BLM field office.

On other lands ("timberlands" and in areas that are closed to mining without lease), timber cleared, used and/or removed must be acquired via a timber sale or a written letter of non-objection from the Alaska Division of Forestry.

Will timber be used for the mining or development of the location or lease? ☐ Yes ☒ No

Describe the timbered area or areas to be cleared; include a map or drawing of the areas of timber to be cleared.

Describe the amount of timber to be used for the mining or development of the location or lease and the clearing methods you will use.

NA

Are more than 40 acres of timbered area(s) to be cleared? ☐ Yes ☒ No

NA

11 AAC 86.145. "A classification or designation indicating that timber and other forest products of significant value are included within a mining property is prima facie evidence that the land on which the property is located is considered to be "timberlands" for purposes of AS 38.05.255"

WASTEWATER DISCHARGE PERMIT APPLICATION

(26)

All mechanical placer mine, suction dredge, and mechanical dredge operations that discharge to a water of the U.S. require an Alaska Pollutant Discharge Elimination System (APDES) permit from DEC. See Cover Pages for a list of APDES permit fees.

Operations wishing to discharge under the APDES Small Suction Dredge General Permit (dredges with intake diameters of 6" or less, or highbankers) may skip this section but must complete annual online registrations, including \$25 fee payments, at <https://dec.alaska.gov/water/edms>.

Previously issued DEC-APDES Wastewater discharge permit #: _____

Do you want this APMA to act as an application or renewal for any of the following APDES general permits (GPs)*:

Mechanical Placer Miners GP (open-cut terrestrial operations):

☐ Yes ☐ No

Medium-Size Suction Dredge GP (nozzle diameter greater than 6" to 10"):

☐ Yes ☐ No

Norton Sound Large Dredge GP (nozzle diameter greater than 10" or mechanical dredge):

☐ Yes ☐ No

Waterbody the discharge flows directly into, or would potentially flow: _____

Approximate coordinates of mine site:

Latitude: _____ Longitude: _____

Source (e.g., DNR - Alaska Mapper): _____

*Mechanical placer operations that do not elect coverage under the Mechanical Placer Miners GP may be required to obtain coverage under the Multi-Sector General Permit for Storm Water. Contact DEC to terminate a permit.

Optional* - Mixing Zone Request or Termination for Mechanical Placer Mine Operations

Do you wish to apply for a mixing zone and modified turbidity limit from DEC?

☐ Yes ☐ No

If a mixing zone is requested, provide the following:

Coordinates of discharge location: Latitude: _____ Longitude: _____

Maximum Effluent Flow anticipated from your operation _____ (GPM) [must be greater than zero (0)].

Distance to nearest downstream drinking water source _____ and downstream placer mine _____.

Do you wish to terminate an active authorized mixing zone? ☒ Yes (APDES# _____) ☐ No

*A mixing zone authorizes an increase in the permit's turbidity limit based on available dilution from the surface water. Permittees without mixing zones must meet the water quality standard for turbidity at the point of discharge into the surface water.

**Certification Statement – applicable only to information required for DEC authorizations
(required for all DEC permit or mixing zone applicants)**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of Responsible Party: _____

Responsible Party Name (First Last, Position) - Printed: _____

Business Name (if applicable) - Printed: _____

SECTION 404 WETLANDS PERMIT

JURISDICTIONAL DETERMINATION (CORPS JD) and MITIGATION STATEMENT

All Placer Mining applicants are required to contact the Corps of Engineers for submittal requirements.

A complete application for a Department of the Army (DA), U.S. Army Corps of Engineers (Corps) Section 404 permit includes a description of project impacts (contained in the APMA), a Jurisdictional Determination (JD) and a Mitigation Statement. The applications for the JD and the Mitigation Statement are contained in two Corps Supplements, which may be attached to this APMA. The Supplements may be downloaded from the Corps and DNR websites, or obtained directly from a Corps office in paper copy, by email, or mail. Please contact the Corps to determine what supplements are required.

The Supplements are available at: <https://www.poa.usace.army.mil/Missions/Regulatory/Placer-Mining/>

Corps Supplement, Attachment 1, Jurisdictional Determination: Attachment 1 must be filled in and submitted to the Corps for **all new placer applications (New and Existing Operations)**. Photos of your mine site are required. Your JD will be valid for five years. Your photos will be used only for the purpose of conducting an offsite JD.

Corps Supplement, Attachment 2, Mitigation Statement: Alaska District regional mitigation policy for placer mining operations under this General Permit (GP) emphasizes avoidance and minimization of impacts; **compensatory mitigation is not required**. However, by regulation, a Mitigation Statement covering measures for avoidance, minimization, and compensatory mitigation, or, a reason why compensatory mitigation is not proposed, must be submitted to the Corps with each new APMA for projects that impact waters of the U.S.

Provide the Latitude and Longitude of the operation location (DD, NAD83):

Latitude: _____ Longitude: - _____

Source (e.g., DNR - Alaska Mapper): _____

Please list Corps permits previously issued for this site: POA- _____ - _____, POA- _____ - _____

Certification Statement

The Alaska District will accept the APMA as a pre-construction notification, pursuant to 33 CFR 320.1 (c). Application is hereby made for a permit to authorize the work described in this APMA. I certify the information in the APMA, and any required Supplements, is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the operator/ applicant.

Operator or Agent:

Print Name

Signature

Date

STREAM DIVERSION AND CULVERTS

(28)

A MAP OF COMPLETE STREAM DIVERSION IS REQUIRED: The map **MUST** show the entire length of the diversion (i.e., where the water is diverted from the natural stream channel to where it returns to the natural stream channel) with start and end locations clearly marked. Pending on the scale of the proposed diversion, additional maps, construction details, and a stream reclamation plan may be requested in addition to this section after initial review. Operations on BLM lands that are proposing a stream diversion are encouraged to contact their local field office as early as possible in the permitting process due to additional requirements. **Contact ADF&G, Habitat Section for Fish Habitat Permitting information regarding diversion requirements.**

Please note: A stream diversion structure may also qualify as a dam and be subject to the Alaska Department of Natural Resources Dam Safety Program per definitions provided in AS 46.17.900(3). If you require further regulatory guidance regarding dams, please contact our Dam Safety and Construction Unit, Dam Safety Engineer at (907) 269-8636, or for more information go to the Alaska Dam Safety Program website at: <http://dnr.alaska.gov/mlw/water/dams/>

Is Stream Diversion Required? ☐ Yes (if Yes, complete information below). ☐ No

Stream Name: _____

☐ Existing (Date Constructed _____) ☐ To Be Constructed (Date _____)

Diversion Start/upstream Location (Lat/Long) _____

Diversion End/Downstream Location (Lat/Long) _____

Is Stream Diversion? ☐ Permanent ☐ Temporary _____ year(s) _____ months

Will diversion be reclaimed annually prior to freeze-up or be retained throughout the mine life?

☐ Annually reclaimed/returned to natural stream ☐ Maintained throughout mine life

Dimensions of existing stream in diversion area:

Length _____ (ft) Top Width _____ (ft) Bottom Width _____ (ft) Depth _____ (ft) Floodplain Width _____ (ft)

Dominant substrate type (Choose Two): ☐ Bedrock ☐ Boulder ☐ Cobble ☐ Gravel ☐ Sand ☐ Silt/Clay

Dimensions of proposed diversion:

Length _____ (ft) Top Width _____ (ft) Bottom Width _____ (ft) Depth _____ (ft) Floodplain Width _____ (ft)

Note: The general geomorphology (e.g., meander, width/depth, pools/runs, etc.) and instream components (e.g., large woody debris, boulder/cobble, etc.) of the natural stream should be mimicked to the extent practicable.

***Required: A written stream diversion narrative in addition to this form. The narrative should describe the following:**

- 1.) Step by Step Procedures
- 2.) Construction Techniques
- 3.) Reclamation Techniques
- 4.) Timelines

Are culverts being installed in any natural water-body or diversion structures? Yes/No _____

If yes include culvert locations, sizes and length on a map or table.

SEE ATTACHED

VICINITY MAP

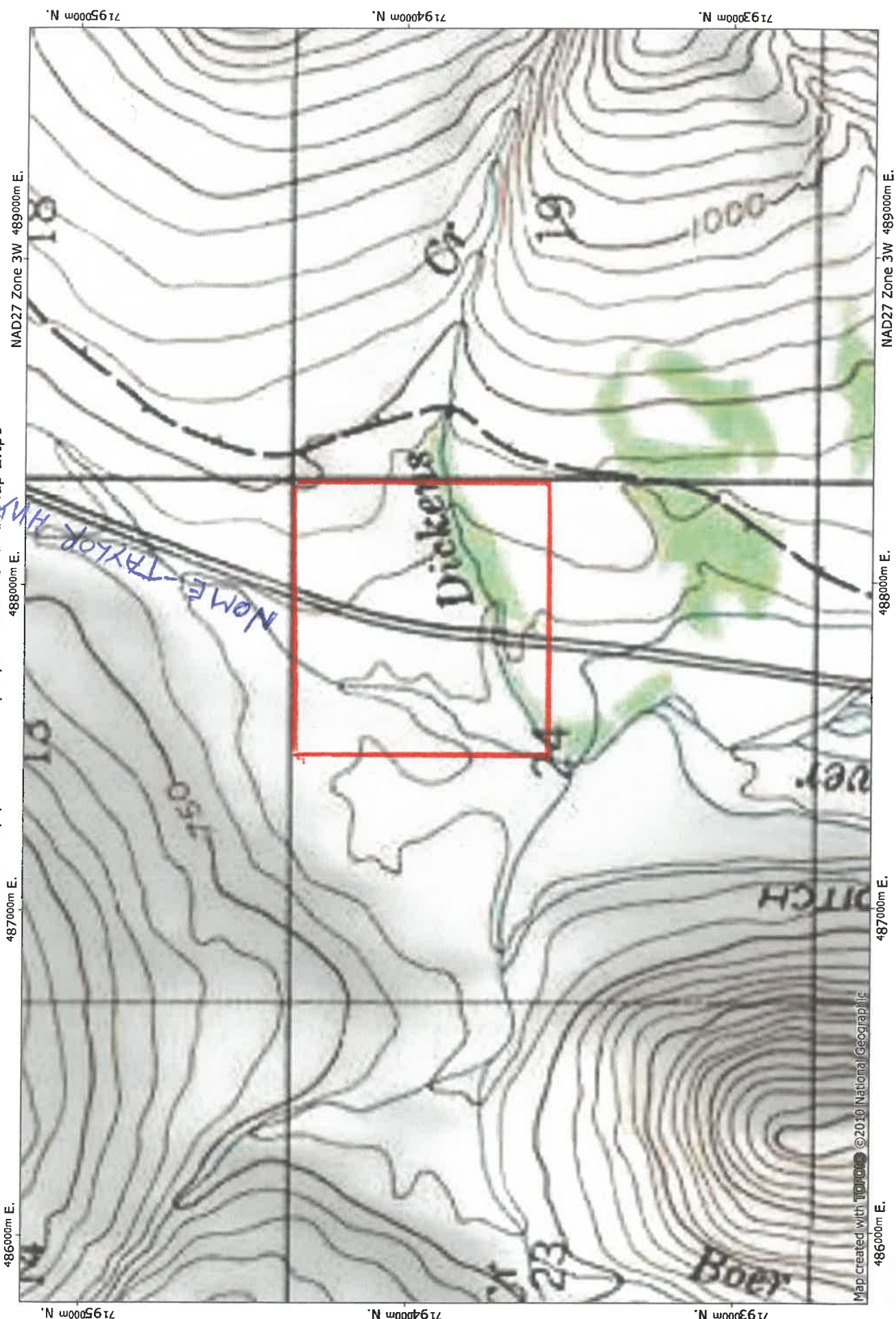
APMA #

ADLs:

(Attach additional sheets, along with detailed explanations as necessary)

AJ1 CLAIM T7S R33W NE1/4 SEC 24 KRM

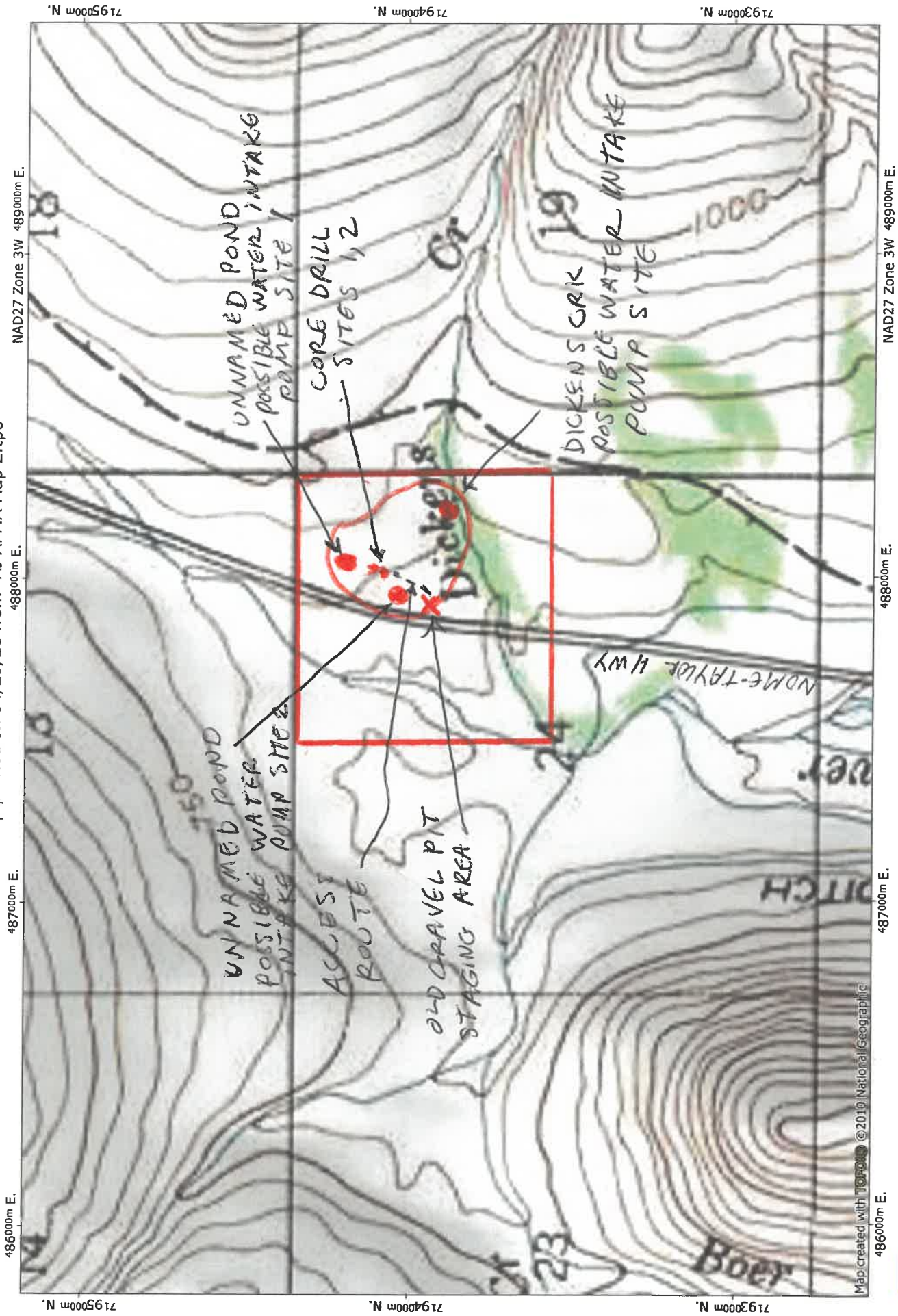
TOPO! map printed on 04/29/26 from "AJ APMA Map 2.tpo"

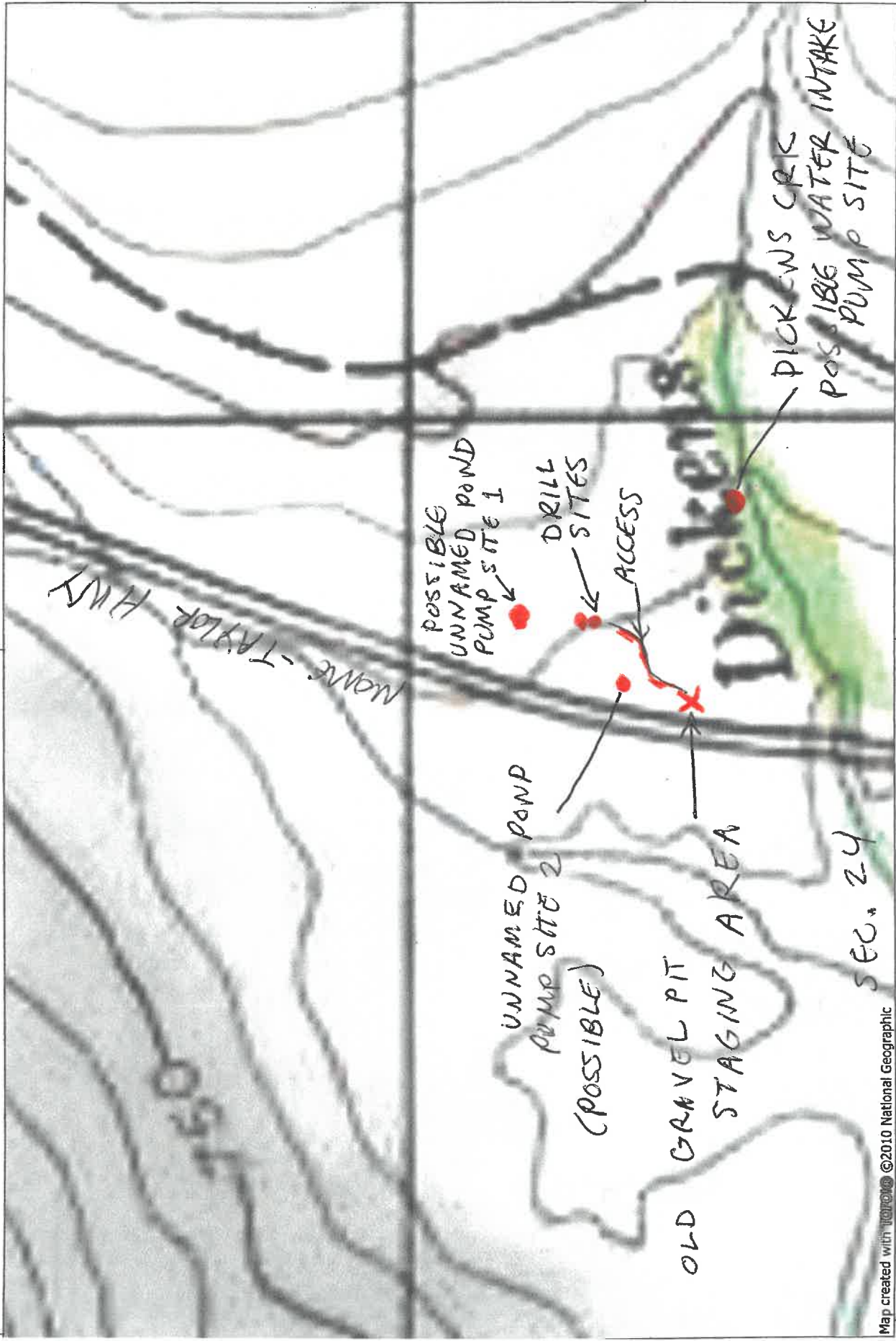


04/29/26
9 1/2°
TN MN

AJ 1 CLAIM ADL 740228 KRM 7538W SEC 24 NE

TOPO! map printed on 04/29/26 from "AJ APMA Map 2.tpo"





AJ 1 CLAIM

PROPOSED DRILL PROGRAM 2026

Legend

- ACCESS PATH TO DRILL SITES
- DRILL SITE

UNNAMED POND POSSIBLE WATER PUMP SITE 1

DRILL SITE 2

DRILL SITE 1

UNNAMED POND
SITE 2

POSSIBLE WATER PUMP

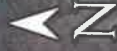
DICKENS CRK POSSIBLE
WATER PUMP
SITE 1

OLD GRAVEL PIT
STAGING AREA

Google Earth

Image © 2026 Airbus

800 ft



KRM T73 R 33W SEC 24 NE 4

LA JACK CORE DRILL, NO ROAD OR DRILL PAD CONSTRUCTION NEEDED.



TYPICAL SURFACE DISTURBANCE (BACK OF) CAUSED BY LA JACK DRILL





PLACER/SUCTION DREDGE NARRATIVE *REQUIRED

(31)

A narrative of the operation is required. Please use this space to describe the access, mining process, environmental protection measures and reclamation measures to be used for the duration of this permit. Use multiple sheets if necessary.

DESCRIBE ACCESS, PERSONNEL HOUSING AND CAMP LAYOUT:

DESCRIBE PROGRESSIVE STEPS OF MINING METHOD:

Handwritten signature or initials.

DESCRIBE PLANNED RECLAMATION MEASURES INCLUDING TIMELINE FOR RECLAMATION TO TAKE PLACE:

DISCUSS WATER MANAGEMENT PLANS, INCLUDING USE, SOURCE, QUANTITY AND SURFACE WATER/ EROSION MANAGMENT PLAN:

DISCUSS FUEL STORAGE, HANDLING, AND SPILL PREVENTION AND RESPONSE PLANS:

DISCUSS HOW THE OPERATION WILL AVOID/MITIGATE POTENTIAL IMPACTS TO FISH, WILDLIFE AND CULTURAL RESOURCES:

HARDROCK NARRATIVE *REQUIRED

(32)

A narrative of the operation is required. Please use this space to describe the access, process, environmental protection measures and reclamation measures to be used for the duration of this permit. Use prompts provided below and include any additional information relevant to the proposed activities.

DESCRIBE ACCESS TO PROPERTY, DRILL/TRENCH SITES, INCLUDING LENGTH AND TYPE OF ACCESS ROUTES. DESCRIBE ACCESS RECLAMATION MEASURES TO BE CONDUCTED AND TIMELINE:

ATV & FOOT TRAVEL, SEE ATTACHED SHEETS (MAPS, PHOTOS, GOOGLE EARTH IMAGE).

DESCRIBE EXPLORATION METHOD, SCOPE OF WORK PROPOSED, EQUIPMENT, WHEN AND WHERE ACTIVITIES WILL OCCUR, PERSONNEL HOUSING LOCATION AND CAMP DESCRIPTION:

SEE ATTACHED SHEET.

DESCRIBE SITE PREPARATION ACTIVITIES AND PRE-RECLAMATION MEASURES:

NO ROAD OR PAD CONSTRUCTION NEEDED.

DESCRIBE PAD CONSTRUCTION AND DIMENSIONS:

NO PAD CONSTRUCTION NEEDED (ROADLESS - PADLESS DRILLING)

DESCRIBE DRILL WASTE AND DRILL WATER MANAGEMENT, DRILL FLUIDS AND DISPOSAL METHODS.

ATTACH MSDS/SDS FOR ALL SUBSTANCES:

SEE ATTACHED SHEETS

DESCRIBE FUEL HANDLING AT EXPLORATION SITES DRILL (PADS AND TRENCHES) AND OFF SITE (CAMP OR BASE OPERATIONS). DISCUSS SPILL PREVENTION AND RESPONSE PLAN:

GASOLINE AND DIESEL

DESCRIBE WATER USE INCLUDING ESTIMATE OF DAILY WATER USE:

DAILY WATER USE VARIABLE DEPENDING ON ROCK CONDITIONS. PROBABLY < 1500 GALS/DAY. PUMP ON ONLY WHEN NEEDED.

DESCRIBE HOW THE OPERATION WILL AVOID AND/OR MITIGATE POTENTIAL IMPACTS TO FISH, WILDLIFE AND CULTURAL RESOURCES:

NO IMPACT. LIMITED LIGHT & SOUND POLLUTION. NO CULTURAL RESOURCES IMPACTED.

DESCRIBE CLOSURE, PLUGGING METHODOLOGY, SURFACE RECLAMATION AND ABANDONEMENT:

HOLES PLUGGED WITH BENESEAL PUMPED TO FILL HOLE THEN SEALER WITH CEMENT.

PLAN OF OPERATIONS

One to Four (1-4) HQ/NQ (2.25" diameter/1.86" diameter) core holes may be drilled (see map) using a track mounted, self-propelled, diesel-powered core rig. Two drill sites would be used and up to two(2) holes may be drilled from each site (typical dip angles of -45, -60, and -90 degree dip). No road build or pad building will be done on the claim.

The drill is owned and operated by Altar Drilling Inc. of Tucson Arizona (Daniel Lajack). David Lajack, BS, geologist, (owner-operator) will be managing the project. Drilling will commence about August 1 and end about Sept 30, 2026. Drilling will have just one, 12-hour shift per day. Drill holes will be 150'-500' in length. The drill has been used on an adjacent property in 2007 and 2013 under APMA permit 9315 and will be used in 2026 at APMA 9315 prior to use on the AJ 1 claim. It has also been used to drill the Kelly Creek property on the Seward Peninsula in 2011 and at Caribou Dome in the Alaska Range in 2009 and 2011 for Caribou Copper Resources and more recently at Valdez Creek in 2025 for World Class Mining Inc.

The drill measures 6.5' x 8.0' and weighs approximately 7,500 lbs. Because of the self-propelled nature of the drill, no road or pad construction will be needed. Very minimal surface disturbance takes place using this drill (see attached photos of the drill in operation and drill site with plugged hole). Holes will be plugged using Beneseal mud and sealed with cement on completion of each hole. Only water and approved bio-degradable drilling fluid (Baroid Quick Gel and AMC CR-250) will be used. The drill uses approximately 10-20 gallons of diesel fuel per shift. 20-30 gallons of fuel will be kept at the site in plastic metal Jerry jugs in a rubber-plastic "trough" about 800 feet from the nearest running water source. The drill will be fueled at the drill site from plastic Jerry-jugs about once per shift. Water for the drill will be taken from sites on either Dickens Creek or possibly from near-by unnamed ponds using a Kohler 12 h.p. gasoline powered pump (see map). Water for drilling will be recycled as much as possible using two livestock watering tanks. The pump is mounted on a small, ATV trailer. It is estimated that about 1000-1500 gallons of water is needed per 12-hour shift. The pumps will be running at about 5 gals/minute or less and will be shut off from time-to-time save fuel consumption. The gasoline engine will be filled once per day from plastic Jerry-jugs filled in Nome. The drilling crew will consist of one driller, one helper and from time to time a geologist. Personnel will visit the drill using either Honda "Foreman" ATV's or foot travel from an existing, old gravel pit staging area. All drill sites will be policed for trash and will be taken to the landfill dump in Nome at least once per week. Drill core will be taken from the drill site by ATV/trailer.

Road access to the property is via the Nome-Taylor Highway. Access on the property is by Honda ATV or foot travel across fairly open, low-relief tundra-muskeg (see map) which is floored by Pleistocene glacial-fluvial material and schist bedrock. Depth to bedrock in the drilling area is probably 50 feet or less. Light pickup trucks will be used to travel between Nome and the staging area. The truck will be used to take core from the prospect and to deliver personnel and supplies as needed.

No camp facilities are needed. No long-term impact on fish and wildlife should occur as the drilling program will be conducted under normal operating industry standards. The property is near and

traversed by and all-season dirt highway that is used for both commercial and recreational use. Upon completion of the drill program all equipment and drill core will be removed.

**STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
STATE WIDE BOND POOL RENEWAL FORM
FOR 2025 OPERATIONS**

APMA # _____

Name _____

Mailing Address _____

City _____

State _____

Zip _____

Submits to the State of Alaska, Department of Natural Resources, a renewal of reclamation bonding in accordance with AS 27.19 for mining activity on claim's: _____

located in T. _____, R. _____, Sections _____, _____ M.

The amount of the refund or amount owed is calculated as follows:

1. Only whole number of acres bonded in 2024: _____ acres rounded up to next integer: _____ acres

2. Total whole number of acres disturbed in 2024? _____ acres rounded up to next integer: _____ acres

This includes unreclaimed acreage from previous years, October 1991 to present, for state or private lands, and 1981 to present for federal claims. On federal claims include area of camp and access roads.

Bonding credits carried forward from 2024 to 2025:

If you claim any acres in 3 or 4 complete the Bond Pool release form.

3. Number of acres bonded in 2024 but not disturbed: _____ acres x \$ 112.50 = \$ _____
(1 minus 2 above)

4. Number of acres reclaimed in 2024 and approved by BLM/ DNR.

_____ acres x \$ 112.50 = \$ _____

Federal miners must submit a **Financial Guarantee Amount Reduction Letter** from BLM. All miners requesting a reduction of acreage must fill out the application for **Bond Release Form**, and include evidence of their reclamation with Photo/Video documentation unless otherwise specified by DNR.

5. Dollar total of lines 3 + 4: \$ _____

Bonding obligations for 2025:

6. Acreage disturbed but not bonded in 2024 (2 minus 1 above): _____ acres x \$ 150.00 = \$ _____

7. Number of all 2024 unreclaimed acres (2 minus 4 above): _____ acres x \$ 37.50 = \$ _____

(line 7 should match "total acreage currently disturbed" on your 2024 Reclamation Plan.

8. New acres to be disturbed in 2025: _____ acres x \$ 150.00 = \$ _____

9. Dollar total of lines 6 + 7 + 8: \$ _____

10. Total acreage bonded in 2025 (7 + 8): _____ acres

If line 5 is larger than line 9 enter the difference here \$ _____. This amount will be refunded.

If line 9 is larger than line 5, the difference is due DNR \$ _____. Make check payable to: DEPARTMENT OF NATURAL RESOURCES.

Signed – Miner _____

Date _____

ADNR - Division of Mining, Land & Water _____

Date _____

BLM - Bureau of Land Management _____

Date _____

Submit to DNR

Clear Form

**APPLICATION FOR RELEASE OF RECLAMATION BOND
OR
REFUND OF BOND POOL DEPOSIT**

APMA NUMBER: _____

Name of Applicant: _____

This form may be used to request release of a reclamation bond or a refund of the refundable portion of the bond pool deposit. **If the bond is for operations on federal claims, reclamation approval is required by the federal land manager before DNR will make the bond deposit refund.** If DNR has not inspected reclamation on the mineral property(s), photographs of the completed reclamation work may be required before the bond is released.

List the mineral property(s) that are subject to a release of a reclamation bond reduction, or refund of the refundable portion of the bond pool deposit. Please provide the casefile type (e.g.; ADL/AKFF/USMS) and number, or if Native Land, provide the legal description (MTRS). _____

Check all that apply: ☐ Reclamation Completed ☐ No Acreage Disturbance ☐ Successor of Interest
Note: _____

In accordance with the above referenced Annual Placer Mining Application (APMA) and approved reclamation plan, the number of acres bonded was _____. I request a release of the bonding obligation and a refund of the refundable bond pool deposit for _____ acres that have been reclaimed, were never disturbed, or a successor of interest has assumed all liability. I understand bond monies are refundable only to those individuals or businesses originally submitting such, unless proper documentation is enclosed indicating refunds should be issued otherwise.

I hereby swear or affirm, under oath, that I have examined Alaska Statute 27.19 (Reclamation Act), 11 AAC 97 (Reclamation Regulations) and my approved reclamation plan and believe myself to have completed the reclamation to the required standards and in accordance with my approved reclamation plan. Photographs of the completed reclamation work are attached: ☐ Yes ☐ No

I understand if the commissioner determines reclamation was not done in accordance with the approved plan of operations and this sworn statement, I remain liable under AS 27.19 to complete the reclamation.

I certify under penalty of perjury the foregoing is true and accurate.

(Signature of Applicant) _____ (Date) _____

NOTARY:

Subscribed and sworn before me this

This _____ day of _____, 20 _____

Signature of Notary: _____

My Commission Expires: _____

NA

**STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
STATE WIDE BOND POOL FORM**

APMA # _____

Name

Mailing Address

City

State

Zip Code

Submits unto the State of Alaska, Department of Natural Resources, the sum of

\$ _____ DOLLARS

for payment into the State Wide Bonding Pool to meet the bonding requirements of Alaska Statute 27.19 for mining activity located on claim numbers

These claims are located within legal description (Township, Range, Section, Meridian)

This bond amount was calculated as follows:

For **Federal Claims**: The total area of the mining operation, including camp site, access roads, unreclaimed areas, and areas to be stripped for mining next season is _____ acres. Acreage should be rounded to the next whole acre. This acreage must include all areas disturbed by mining operations after January 1, 1981, that have not been approved as reclaimed by BLM. If a mining operation disturbs a previously mined area, that area must also be included in the acreage to be bonded.

For **State and Patented Claims**: The active mining disturbance, not including camp and access roads is _____ acres (acreage should be rounded to the next whole acre). This includes all areas that are part of the mining operation; including stripped areas, mining cuts, overburden and tailing stockpiles and disposal areas, temporary or permanent stream diversions, and settling ponds. This acreage must include all areas disturbed by a mining operation after October 15, 1991 that have not been approved as reclaimed by ADNRR. If a mining operation disturbs a previously mined area, that area must also be included in the acreage to be bonded.

Refundable bond deposit (new): _____ acres X \$112.50 = \$ _____

Nonrefundable bond pool annual fee (new): _____ acres X \$ 37.50 = \$ _____

Total \$ _____

Make check payable to 'Department of Natural Resources'. Sign and return form with applicable fees to: DNR - Mining: 550 W. 7th Ave. Suite 900B, Anchorage, AK 99501-3577 or 3700 Airport Way, Fairbanks, AK 99709-4699.

Signed - Miner

Date

ADNR - Division of Mining, Land & Water

Date

BLM - Bureau of Land Management

Date

CROSS SECTION SKETCH *REQUIRED

BEFORE ACTIVITY

(30)

NA

DURING ACTIVITY

NA

AFTER ACTIVITY

NA

2024 2025 RECLAMATION PLAN FORM (PLACER EXPLORATION OR MINING)

☐ A. RECLAMATION PLAN (REQUIRED if the operation will disturb five or more acres this year, OR 50,000 cubic yards, OR if the operation has a cumulative disturbed area of five or more acres).	☐ B. RECLAMATION PLAN VOLUNTARY (for an operation below limits shown in Box A but wanting to qualify for the statewide bonding pool. (Operations on BLM Lands and others not filing Letter of Intent).	☒ C. LETTER OF INTENT (34) (less than five acres to be disturbed AND less than 50,000 cubic yards AND less than five acres unreclaimed area).
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In accordance with Alaska Statute 27.19, reclamation is required of all mining operations. Reclamation bonding is required of operations with disturbance of 5 acres or greater. Completion of this application will meet the requirements for a "Reclamation Plan" for operations 5 acres and larger in size and for a "Letter of Intent To Do Reclamation" for operations under 5 acres. If you do not intend to use the reclamation methods presented below, you must provide additional information concerning your plans for reclamation under separate attachments.

Total acreage currently disturbed: _____ acres. This should match: "Total Unreclaimed Acres" on your 2024 Annual Reclamation Statement for Small Mines, or line #7 on your 2025 Bond Pool Renewal Form. Disturbed ground includes all unreclaimed mining and exploration activity (excluding camps and roads) since October 1991. Federal operators must include areas of camps and roads.

New acres to be disturbed in 2025 < 1 acres. Total acreage (currently disturbed plus new acres): < 1 acres.

Acreage disturbed by land status: < 1 State (general) NA State (Mental Health) NA Private NA Federal

Total acreage to be reclaimed in 2025: ALL acres; Total volume of material to be disturbed in 2025: < 5 cubic yards.

Include strippings and overburden to be removed. Cubic yards = Length (yards) x Width (yards) x Depth (yards).

☒ Reclamation will be conducted concurrently with activity. ☐ Reclamation will be conducted at the end of the season.

THE FOLLOWING RECLAMATION MEASURES SHALL BE USED:

(These measures are required by law. Those that do not apply may be crossed out; but, an explanation must be given as to why these measures are not necessary at your site.)

- Topsoil, vegetation, and overburden muck, not promptly redistributed to an area being reclaimed, will be individually separated and stockpiled for future use. This material will be protected from erosion and from contamination by acidic or toxic materials and will not be buried by tailings.
- The area reclaimed will be reshaped to blend with the surrounding area using tailings, strippings, and overburden and be stabilized.
- Stockpiled topsoil, overburden muck, will be spread over the contoured exploration sites to promote natural plant growth such that the area can reasonably be expected to revegetate within five years. Stockpiled vegetation will be spread over topsoils.
- Settling ponds located within the active flood plain and necessary for continued use during the next mining season will be protected from erosion or the fines removed.
- If the mining operation diverts a stream channel or modifies a flood plain to the extent that the stream channel is no longer stable, the stream channel will be reestablished in a stable location in the valley flood plain.
- The flood plain will be established as appropriate to accommodate seasonal high-water flood events and prevent undue erosional degradation.
- Exploration trenches will be backfilled. Brush piles, stumps, topsoil, and other organics will be spread on the backfilled surface to inhibit erosion and promote natural revegetation.
- Shallow auger holes (limited to depth of overburden) will be backfilled with drill cuttings or other locally available material in such a manner that closes the hole to minimize the risk to humans, livestock and wildlife.
- At placer drift mine closure, all mine shafts, adits, tunnels, and air vents to underground workings will be stabilized and properly sealed to ensure protection of the public, wildlife, and the environment.
- On state lands; all buildings and structures constructed, used or improved will be removed, dismantled, or otherwise properly disposed of unless the surface owner or manager authorizes that the buildings and structures may stay.
- On state lands; all scrap iron, equipment, tools, piping, hardware, chemicals, fuels, waste, and general construction debris will be removed or properly disposed of.
- Reclamation measures taken will be consistent with any alternate post mining land use approved by the Commissioner, subject to the provisions of 11 AAC 97.300(h) and the conditions (if any) of an approved reclamation plan.

IMPORTANT: 1. Alternative reclamation measures may be approved if the reclamation measures presented above are not applicable to your site. Please explain in separate correspondence. Submit a sketch and describe additional reclamation measures you propose to conduct at your operation. Reclamation measures must comply with AS 27.19.

BONDING: In accordance with AS 27.19, bonding is required for all operations having a mined area of greater than or equal to five acres on State Land. This area must be bonded for \$750.00 per acre, unless the miner can demonstrate that a third party contractor can do the needed reclamation for less. The Statewide Bonding Pool may be joined by completing a bond pool application form and meeting certain requirements. No reclamation plan approval goes into effect until the bonding pool deposit and annual nonrefundable fees are paid. Use bond form to calculate area of disturbance for bonding.

BLM requires that a reclamation plan be consistent with 43 CFR 3809.420, Performance Standards for the Surface Management regulations for Federal Operations. Refer to 43 CFR 3809 or the BLM minerals website available at <https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals> for more information on what is needed for a reclamation plan on Federal lands, as they may be different than those identified above.

<u>DAVID LATACK</u> Printed name (Applicant) <u>[Signature]</u> Signature (Applicant)	Relationship to Mineral Property: ☒ Owner ☐ Lessee ☒ Operator ☐ Agent For: _____	Date: _____ APMA #: _____
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QUIK-GEL®

Viscosifier

Description

QUIK-GEL® viscosifier is an easy-to-mix, finely ground (200-mesh), premium-grade, high-yielding Wyoming sodium bentonite. QUIK-GEL viscosifier imparts viscosity, fluid loss control and gelling characteristics to freshwater-based drilling fluids.

Applications/Functions

The use of QUIK-GEL viscosifier promotes or assists the following:

- Mix with fresh water to form a low-solids drilling fluid for general drilling applications
- Viscosify water-based drilling fluids
- Reduce filtration by forming a thin filter cake with low permeability
- Improve hole-cleaning capability of drilling fluids
- Mix with foaming agents to make "gel/foam" drilling fluids for air/foam drilling applications

Advantages

- NSF/ANSI Standard 60 certified
- Single-sack product and cost effective
- Can provide lubricity for drilling fluids
- Can mix easily and quickly reach maximum viscosity
- Can yield more than twice as much mud of the same viscosity as an equal weight of API oilfield grades of bentonite

Typical Properties

- | | |
|------------------------------------|----------------------|
| • Appearance | Grey to tan powder |
| • Bulk density, lb/ft ³ | 68 to 72 (compacted) |
| • pH (3% solution) | 8.9 |

Recommended Treatment

Mix slowly through a jet mixer or sift slowly into the vortex of a high-speed stirrer.

Approximate Amounts of QUIK-GEL viscosifier Added to Freshwater

Application/Desired Result	lb/100 gal	lb/bbl	kg/m ³
Normal Drilling Conditions	15-25	6-10	18-30
Unconsolidated Formations	35-50	15-21	42-60
Make-Up For Gel/Foam Systems	12-15	5-7	14-18

- 1 bbl = 42 U.S. gallons

Additional Information

Note:

- For optimum yield, pre-treat make-up water with 1-2 pounds of soda ash per 100 gallons of water (1.2-2.4 kg/m³).

Packaging	QUIK-GEL viscosifier is packaged in 50-lb (22.7-kg) multiwall paper bags.
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Availability	QUIK-GEL viscosifier can be purchased through any Baroid Industrial Products Retailer. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.
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Baroid Industrial Drilling Products

Product Service Line, Halliburton

3000 N. Sam Houston Pkwy. E.

Houston, TX 77032

Customer Service	(800) 735-6075 Toll Free	(281) 871-4612
Technical Service	(877) 379-7412 Toll Free	(281) 871-4613

HALLIBURTON

SAFETY DATA SHEET

Product Trade Name: QUIK-GEL®

Revision Date: 11-Jan-2023

Revision Number: 26

1. Identification

1.1. Product Identifier

Product Trade Name: QUIK-GEL®
Synonyms None
Chemical Family: Mineral
Internal ID Code HM003747

1.2 Recommended use and restrictions on use

Application: Viscosifier
Uses advised against No information available

1.3 Manufacturer's Name and Contact Details

Manufacturer/Supplier

Baroid Fluid Services
Product Service Line of Halliburton Energy Services, Inc.
P.O. Box 1675
Houston, TX 77251
Telephone: (281) 871-4000

Halliburton Group Canada
645 - 7th Ave SW Suite 1800
Calgary, AB, T2P 4G8, Canada
Telephone: 1-403-231-9300

Prepared By Chemical Stewardship
e-mail: fdunexchem@halliburton.com

1.4. Emergency telephone number:

Emergency Telephone Number 1-866-519-4752 or 1-760-476-3962 (accessible 24 hours a day / 7 days a week)
Global Incident Response Access Code: 334305
Contract Number: 14012

2. Hazards Identification

2.1 Classification in accordance with paragraph (d) of §1910.1200

Carcinogenicity	Category 1A - H350
Specific Target Organ Toxicity - (Repeated Exposure)	Category 1 - H372

2.2. Label Elements

Hazard Pictograms

Breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

All standard fire fighting media

Extinguishing media which must not be used for safety reasons

None known.

5.2 Specific hazards arising from the substance or mixture

Special exposure hazards in a fire

None anticipated

5.3 Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid creating and breathing dust. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

See Section 8 for additional information.

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Collect using dustless method and hold for appropriate disposal. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage and disposal.

7. Handling and storage

7.1. Precautions for safe handling

Handling Precautions

This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Wear a NIOSH certified, European Standard En 149, or equivalent respirator when using this product. Material is slippery when wet. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Information

Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Keep from excessive heat. Do not reuse empty container. Product has a shelf life of 36 months.

8. Exposure Controls/Personal Protection

8.1 Occupational Exposure Limits

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Crystalline silica, quartz	14808-60-7	TWA: 50 µg/m ³	TWA: 0.025 mg/m ³

Exposures to crystalline silica that result from bentonite or other sorptive clays are exempt from the PEL in §1910.1053. The PEL in §1910.1000 Table Z-3 (i.e., the formula that is approximately equivalent to 100 µg/m³) applies to occupational exposures to respirable crystalline silica from sorptive clays.

8.2 Appropriate engineering controls

Engineering Controls Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits.

8.3 Individual protection measures, such as personal protective equipment

Personal Protective Equipment If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection Not normally needed. But if significant exposures are possible then the following respirator is recommended:
Dust/mist respirator. (N95, P2/P3)

Hand Protection Normal work gloves.

Skin Protection Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.

Eye Protection Wear safety glasses or goggles to protect against exposure.

Other Precautions None known.

9. Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

Physical State: Powder **Color** Various

Odor: Mild earthy **Odor** No information available

Threshold:

Property	Values
Remarks/ - Method	
pH:	8-10
Freezing Point / Range	No data available
Melting Point / Range	No data available
Pour Point / Range	No data available
Boiling Point / Range	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper flammability limit	No data available
Lower flammability limit	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	2.6
Water Solubility	Partly soluble
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%)

No data available

10. Stability and Reactivity**10.1. Reactivity**

Not expected to be reactive.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

Will Not Occur

10.4. Conditions to avoid

None anticipated

10.5. Incompatible materials

Hydrofluoric acid.

10.6. Hazardous decomposition products

Amorphous silica may transform at elevated temperatures to tridymite (870 C) or cristobalite (1470 C).

11. Toxicological Information**11.1 Information on likely routes of exposure****Principle Route of Exposure** Eye or skin contact, inhalation.**11.2 Symptoms related to the physical, chemical and toxicological characteristics****Acute Toxicity****Inhalation**

Inhaled crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC, Group 1). There is sufficient evidence in experimental animals for the carcinogenicity of tridymite (IARC, Group 2A).

Breathing silica dust may cause irritation of the nose, throat, and respiratory passages. Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may also have serious chronic health effects (See "Chronic Effects/Carcinogenicity" subsection below).

Eye Contact

May cause mechanical irritation to eye.

Skin Contact

None known.

Ingestion

None known.

Chronic Effects/Carcinogenicity

Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling, and sometimes-fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop tuberculosis.

Cancer Status: The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans (Group 1 - carcinogenic to

humans) and has determined that there is sufficient evidence in experimental animals for the carcinogenicity of tridymite (Group 2A - possible carcinogen to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (June 1997) in conjunction with the use of these minerals. The National Toxicology Program classifies respirable crystalline silica as "Known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by scarring of the lungs, skin, and other internal organs) and kidney disease.

This product contains Wyoming bentonite or other sorptive clays. Crystalline silica forms found in this particular clay are limited to quartz. Extreme temperatures that can generate cristobalite or tridymite are not expected to occur under realistic conditions. In addition, all quartz found in sorptive clays are considered "occluded", i.e., strongly coated with an amorphous silica surface (Wendlandt et al., 2007; Hochella and Murayama, 2010; SMI, 2014). Occluded quartz has been experimentally-determined to be relatively non-toxic compared to unoccluded quartz (Geh et al., 2006; Creutzenberg et al., 2008). A lack of health effects found in several studies examining occupational exposure to sorptive clays also suggest that chronic inhalation of sorptive clays is not expected to result in silicosis or cancer (Waxweiler et al., 1988; ACGIH, 1991; USEPA, 1996; IARC, 2005). In light of these findings OSHA has recently exempted Wyoming bentonite and other sorptive clays from the crystalline silica PEL in §1910.1053(a)(1)(iii).

11.3 Toxicity data

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Crystalline silica, quartz	14808-60-7	> 15000 mg/kg (human)	No data available	No data available

Substances	CAS Number	Skin corrosion/irritation
Crystalline silica, quartz	14808-60-7	Non-irritating to the skin

Substances	CAS Number	Serious eye damage/irritation
Crystalline silica, quartz	14808-60-7	Non-irritating to the eye No information available

Substances	CAS Number	Skin Sensitization
Crystalline silica, quartz	14808-60-7	No information available.

Substances	CAS Number	Respiratory Sensitization
Crystalline silica, quartz	14808-60-7	No information available

Substances	CAS Number	Mutagenic Effects
Crystalline silica, quartz	14808-60-7	Not regarded as mutagenic.

Substances	CAS Number	Carcinogenic Effects
Crystalline silica, quartz	14808-60-7	Contains crystalline silica which may cause silicosis, a delayed and progressive lung disease. The IARC and NTP have determined there is sufficient evidence in humans of the carcinogenicity of crystalline silica with repeated respiratory exposure.

Substances	CAS Number	Reproductive toxicity
Crystalline silica, quartz	14808-60-7	No information available

Substances	CAS Number	STOT - single exposure
Crystalline silica, quartz	14808-60-7	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Crystalline silica, quartz	14808-60-7	Causes damage to organs through prolonged or repeated exposure if inhaled: (Lungs)

Substances	CAS Number	Aspiration hazard
Crystalline silica, quartz	14808-60-7	No information available

12. Ecological Information

12.1. Toxicity

Acute Fish Toxicity

TLM96: 10000 ppm (Oncorhynchus mykiss)

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Crystalline silica, quartz	14808-60-7	EC50(72 h)=440 mg/L (Pseudokirchneriella subcapitata)	LL0(96 h)=10000 mg/L (Danio rerio)	No information available	LL50(24 h)>10000 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Crystalline silica, quartz	14808-60-7	The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
Crystalline silica, quartz	14808-60-7	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Crystalline silica, quartz	14808-60-7	No information available

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1. Waste treatment methods

Disposal methods

If practical, recover and reclaim, recycle, or reuse by the guidelines of an approved local reuse program. Should contaminated product become a waste, dispose of in a licensed industrial landfill according to federal, state, and local regulations.

Contaminated Packaging

Follow all applicable national or local regulations.

14. Transport Information**US DOT**

UN Number Not restricted
 UN proper shipping name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

Canadian TDG

UN Number Not restricted
 UN proper shipping name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

IMDG/IMO

UN Number Not restricted
 UN proper shipping name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

IATA/ICAO

UN Number Not restricted
 UN proper shipping name: Not restricted
 Transport Hazard Class(es): Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

Special Precautions for User None

15. Regulatory Information**US Regulations**

US TSCA Inventory All components listed on inventory or are exempt.

TSCA Significant New Use Rules - S5A2

Substances	CAS Number	TSCA Significant New Use Rules - S5A2	TSCA Section 5(E) Consent Orders
Crystalline silica, quartz	14808-60-7	Not applicable	Not applicable

EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
Crystalline silica, quartz	14808-60-7	Not applicable

EPA SARA (311,312) Hazard Class

Specific target organ toxicity (single or repeated exposure)
 Carcinogenicity

EPA SARA (313) Chemicals:

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Crystalline silica, quartz	14808-60-7	Not applicable	Not applicable

EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
Crystalline silica, quartz	14808-60-7	Not applicable

EPA RCRA Hazardous Waste Classification

If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

California Proposition 65

Substances	CAS Number	California Proposition 65
Crystalline silica, quartz	14808-60-7	carcinogen

U.S. State Right-to-Know Regulations

Substances	CAS Number	MA Right-to-Know Law	NJ Right-to-Know Law	PA Right-to-Know Law
Crystalline silica, quartz	14808-60-7	Carcinogen Extraordinarily hazardous	Present	Present

Canadian Regulations

Canadian Domestic Substances All components listed on inventory or are exempt.
List (DSL)

16. Other information**Preparation Information**

Prepared By Chemical Stewardship
e-mail: fdunexchem@halliburton.com

Revision Date: 11-Jan-2023

Reason for Revision Update to Format

Additional information:

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

NFPA Ratings: Health 0, Flammability 0, Reactivity 0
HMIS Ratings: Health 0*, Flammability 0, Physical Hazard 0, PPE: E

Key or legend to abbreviations and acronyms used in the safety data sheet

ADR - The European Agreement concerning the International Carriage of Dangerous Goods by Road
AS/NZS 1715 - New Zealand Standard on Selection, use and maintenance of respiratory protective equipment
bw – body weight
C - Celsius
CAS – Chemical Abstracts Service
CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures
EC – European Commission
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
EN 149 - European standard on filtering halfmasks to protect against particles
ErC50 – Effective Concentration growth rate 50%
EN 374 - European standard on Protective gloves against chemicals and micro-organisms
FFP - Filtering Facepieces

h - hour

IATA/ICAO - International Air Transport Association / International Civil Aviation Organization

IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

LC50 – Lethal Concentration 50%

IMDG/IMO - International Maritime Dangerous Goods / International Maritime Organization

LD50 – Lethal Dose 50%

LL0 – Lethal Loading 0%

LL50 – Lethal Loading 50%

MAK - Maximum Workplace Concentration

MARPOL – International Convention for the Prevention of Pollution from Ships

mg/kg – milligram/kilogram

mg/L – milligram/liter

mg/m³ - milligram/cubic meter

mm - millimeter

mmHg - millimeter mercury

NIOSH – National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NDS - najwyższe dopuszczalne stężenie na stanowisku pracy

NDS - OEL-TWA [Poland najwyższe dopuszczalne stężenie na stanowisku pracy]

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PBT – Persistent Bioaccumulative and Toxic

PC – Chemical Product category

PEL – Permissible Exposure Limit

ppm – parts per million

PROC – Process category

REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

R/H-phrases - Risk/Hazard-phrases

RID - The European Agreement concerning the International Carriage of Dangerous Goods by Rail

STEL – Short Term Exposure Limit

SU – Sector of Use category

SZW - Netherlands Ministry of Social Affairs and Employment

TWA – Time-Weighted Average

UK - United Kingdom

UN – United Nations

VLA-EC - short-time excursion limits [Spain valores límite ambientales para la exposición de corta duración]

VLA-ED - time-weighted average values for a whole work shift [Spain valores límite ambientales para la exposición diaria]

VOC – Volatile Organic Carbon

vPvB – very Persistent and very Bioaccumulative

w/w - weight/weight

Key literature references and sources for data

www.ChemADVISOR.com/

NZ CCID

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

End of Safety Data Sheet

AMC CR 650™

AMC

Chemwatch: 4902-92

Version No: 16.2

Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

Initial Date: 09/16/2002

Revision Date: 06/25/2025

Print Date: 05/04/2026

L.GHS.AUS.EN.E

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	AMC CR 650™
Chemical Name	Not Applicable
Synonyms	PHPA
Chemical formula	Not Applicable
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Drilling fluid additive.
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Details of the manufacturer or importer of the safety data sheet

Registered company name	AMC
Address	216 Balcatta Rd, Balcatta WA 6021 Australia
Telephone	+61 (8) 9445 4000
Fax	Not Available
Website	www.amcmud.com
Email	amc@imdexlimited.com

Emergency telephone number

Association / Organisation	Chemwatch	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone number(s)	1800 039 008	+61 1800 951 288 (ID#: 4902-92)
Other emergency telephone number(s)	Not Available	+61 3 9573 3188

SECTION 2 Hazards identification

Classification of the substance or mixture

NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
Classification ^[1]	Non hazardous
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Hazard statement(s)

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

No further product hazard information.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	100	Ingredients determined not to be hazardous
Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available		

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: ▶ Wash out immediately with water. ▶ If irritation continues, seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	▶ If dust is inhaled, remove from contaminated area. ▶ Encourage patient to blow nose to ensure clear passage of breathing. ▶ If irritation or discomfort persists seek medical attention.
Ingestion	▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

Fire Incompatibility	None known.
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Advice for firefighters

Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	▶ Non combustible. ▶ Not considered a significant fire risk, however containers may burn. Decomposes on heating and produces toxic fumes of: ▶ carbon monoxide (CO) ▶ carbon dioxide (CO2) nitrogen oxides (NOx)
HAZCHEM	Not Applicable

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	▶ Clean up all spills immediately. ▶ Avoid contact with skin and eyes.
Major Spills	▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	▶ Limit all unnecessary personal contact. ▶ Wear protective clothing when risk of exposure occurs.
Other information	▶ Store in original containers. ▶ Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container	▶ Lined metal can, lined metal pail/ can. ▶ Plastic pail.
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

MATERIAL DATA

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
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	▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. ▶ polychloroprene.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. OTHERWISE: ▶ Overalls.

Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	- -	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3 Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO₂), G = Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	White powder, soluble in water.		
Physical state	Divided Solid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	>150	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (1%)	5.0-9.0 (@ 5 g/L)
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available
Heat of Combustion (kJ/g)	Not Available	Ignition Distance (cm)	Not Available
Flame Height (cm)	Not Available	Flame Duration (s)	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

a) Acute Toxicity	Based on available data, the classification criteria are not met.
b) Skin Irritation/Corrosion	Based on available data, the classification criteria are not met.
c) Serious Eye Damage/Irritation	Based on available data, the classification criteria are not met.
d) Respiratory or Skin sensitisation	Based on available data, the classification criteria are not met.
e) Mutagenicity	Based on available data, the classification criteria are not met.
f) Carcinogenicity	Based on available data, the classification criteria are not met.
g) Reproductivity	Based on available data, the classification criteria are not met.
h) STOT - Single Exposure	Based on available data, the classification criteria are not met.
i) STOT - Repeated Exposure	Based on available data, the classification criteria are not met.
j) Aspiration Hazard	Based on available data, the classification criteria are not met.
Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Eye	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness.
AMC CR 650™	TOXICITY Not Available IRRITATION Not Available

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

SECTION 12 Ecological information

Toxicity

AMC CR 650™	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. US EPA, Ecotox database - Aquatic Toxicity Data 4. ECETOC Aquatic Hazard Assessment Data 5. NITE (Japan) - Bioconcentration Data 6. METI (Japan) - Bioconcentration Data 7. Vendor Data				

DO NOT discharge into sewer or waterways.

May be harmful to fauna if not disposed of according to Section 13 and legislative requirements. [AMC]

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	- Recycle wherever possible or consult manufacturer for recycling options. - Consult State Land Waste Management Authority for disposal.
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SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
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14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
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Safety, health and environmental regulations / legislation specific for the substance or mixture**Additional Regulatory Information**

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIC / Australia Non-Industrial Use	Not Available
Canada - DSL	Not Available
Canada - NDSL	Not Available
China - IECSC	Not Available
Europe - EINEC / ELINCS / NLP	Not Available
Japan - ENCS	Not Available
Korea - KECI	Not Available
New Zealand - NZIoC	Not Available
Philippines - PICCS	Not Available
USA - TSCA	Not Available
Taiwan - TCSI	Not Available
Mexico - INSQ	Not Available
Vietnam - NCI	Not Available
Russia - FBEPH	Not Available
UAE - Control List (Banned/Restricted Substances)	Not Available
<i>Yes = All CAS declared ingredients are on the inventory</i> <i>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</i>	
Legend:	

SECTION 16 Other information

Revision Date	06/25/2025
Initial Date	09/16/2002

SDS Version Summary

Version	Date of Update	Sections Updated
16.1	12/23/2022	Classification review due to GHS Revision change.
16.2	06/25/2025	Identification of the substance / mixture and of the company / undertaking - Supplier Information

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Definitions and abbreviations

- ▶ PC - TWA: Permissible Concentration-Time Weighted Average
- ▶ PC - STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit,
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ ES: Exposure Standard
- ▶ OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level

- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- MARPOL: International Convention for the Prevention of Pollution from Ships
- IMSBC: International Maritime Solid Bulk Cargoes Code
- IGC: International Gas Carrier Code
- IBC: International Bulk Chemical Code

- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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The product is with a concentration less than 5% in a drilling fluid as a non-hazardous chemical classified.