Plan of Operations for Rustlers Claims

Report Prepared for

Valdez Creek Mining LLC

Report Prepared by

SRK Consulting (U.S.), Inc.
384500.010
April 2013

Plan of Operations for Rustlers Claims

Valdez Creek Mining LLC

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SRK Project Number: 384500.010

April 2013

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Bill Jeffress
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Peer Reviewed by:
Steve Teller
Principal Consultant

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Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (U.S.), Inc. (SRK) by Valdez Creek Mining LLC (VCM). These opinions are provided in response to a specific request from VCM to do so, and are subject to the contractual terms between SRK and VCM. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report.

List of Abbreviations

ADNR	Alaska Department of Natural Resources
ADEC	Alaska Department of Environmental Conservation
ANILCA	Alaska National Interest Lands Conservation Act
APMA	Alaska Placer Mining Application
AAC	Alaska Administrative Code
AS	Alaska Statute
BLM	Bureau Land Management
BMP	best management practices
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
FLMPA	Federal Land Policy Management Act
MSHA	Mine Safety and Health
Plan	Plan of Operation
SRCE	Standard Reclamation Cost Estimator Model
SPCC	Spill Prevention Control and Countermeasure Plan
SWPPP	Storm Water Pollution Prevention Plan
VCM	Valdez Creek Mining LLC

Units of Measure

bcy	bank cubic yard
cfs	cubic feet per second
ft	foot/feet
gpm	gallons per minute
lcy	loose cubic yard
yd^3	cubic yard

1 Introduction

Valdez Creek Mining LLC (VCM) is submitting this Plan of Operation (Plan) for the Rustlers Claims placer mining project (Project). This document was prepared in accordance with applicable requirements of the U.S. Bureau of Land Management (BLM) regulations (43 CFR §3809) and Alaska regulations AS 27.19.010 et. seq., 11 AAC 97.100 et. seq., AS 38.05.020 et. seq., and 11 AAC 86.800 et seq.

1.1 Purpose

The purpose of the proposed action is to provide an opportunity for VCM, a placer mining operation, to develop resources in the Valdez Creek Mining District using modern mining practices. The need for the proposed action is established by the General Mining Law of 1872. This law allows all qualified residents of the United States of America to stake and mine claims on federal lands, Federal Land Policy Management Act (FLPMA), which allows for multiple use of public lands, and the East Alaska Resource Management Plan which allows for the opportunity to develop mineral resources in this area.

1.2 Location and Unpatented Federal Mining Claims

The Project is located in south central Alaska at the location shown on Figure 1. The site is located adjacent to White Creek, a tributary of Valdez Creek. Access is from the Denali Highway and follows a gravel road that proceeds up the Susitna Valley, up Valdez Creek, and then up White Creek. This road is used by the general public and other placer miners in the area. No off road access is required to access the site. The access road is shown on Figure 2.

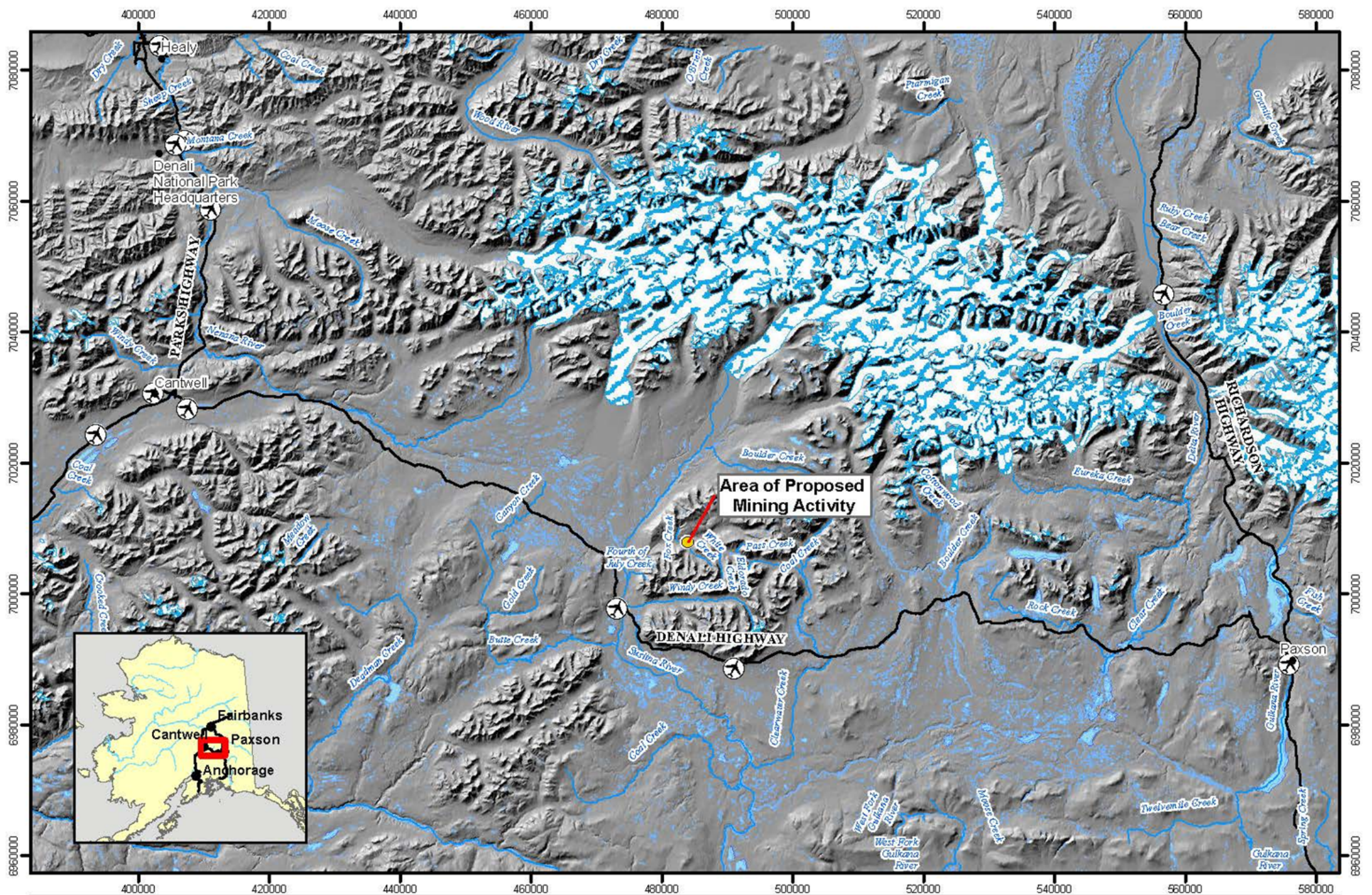


Figure 1: General Location Valdez Creek Project

Valdez Creek Mining LLC Alaska	REV NO. A
	AUTHOR: RDI-MRA
	REVIEWED BY:
DATE: 3/26/2013	FILE: SRK_GeneralLocationMap_8x11L_v01.mxd

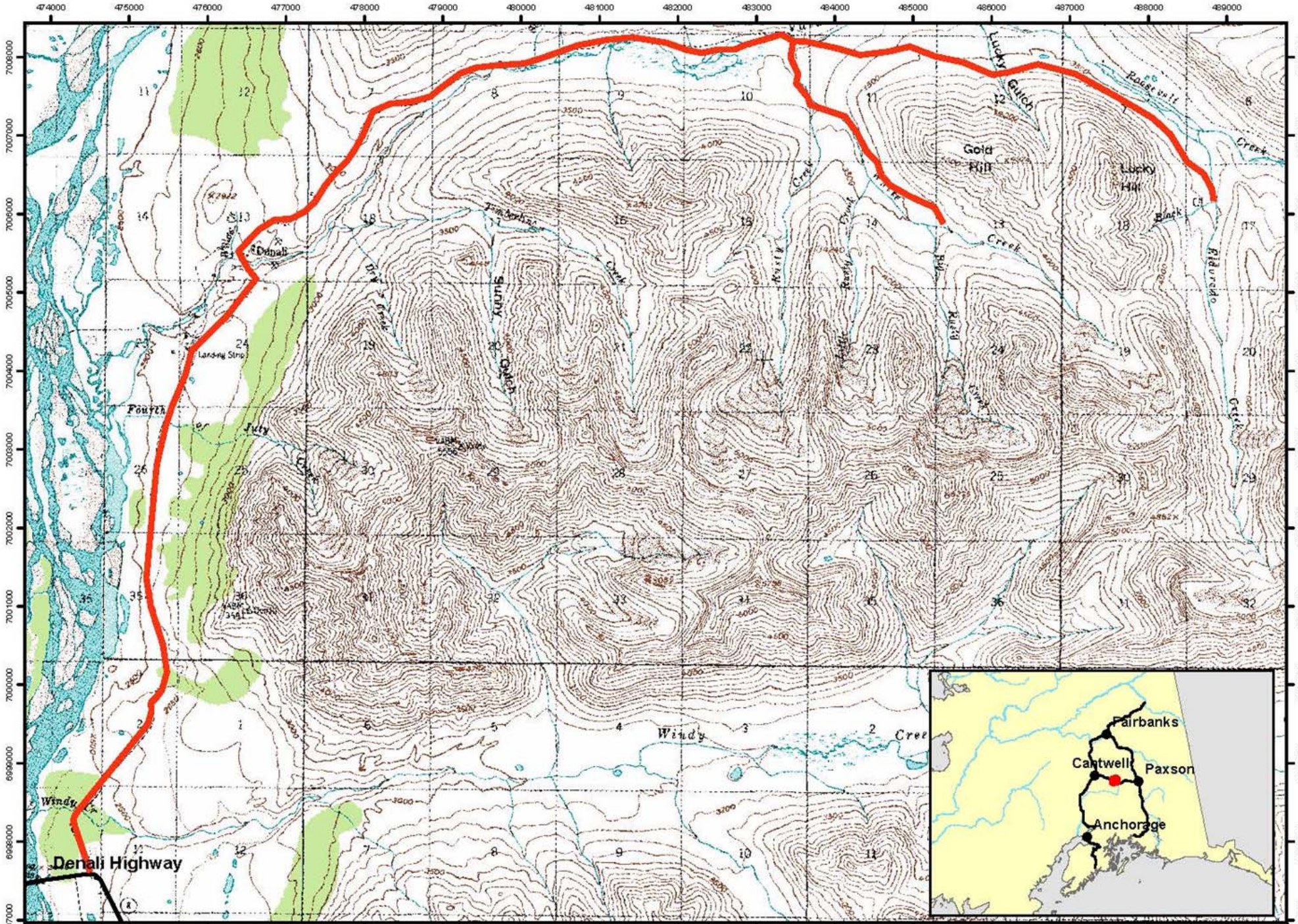


Figure 2: Access Map

2 Applicant Information

2.1 Name and Business Address of Individual Completing Application

Name: John Cioffoletti

Title: CIO

Business Name: Valdez Creek Mining LLC.

Business Address: 73 Broad Street
Red Bank, NJ 07701

Telephone Number: (732) 939-0048

2.2 Taxpayer ID Number

Taxpayer ID Number: 46-2257822

2.3 Registered Agent

Alaska Registered Resident Agent Information:

Name: Joan Travostino

Title: Attorney

Business Name: K&L Gates LLP

Business Address: 420 L Street, Suite 400
Anchorage, AK 99501

Telephone Number: (907) 276-1969

3 Existing and Proposed Operations

3.1 List of BLM Claims and Serial Numbers

Proposed mining and related surface disturbance will be conducted on unpatented mining claims owned, leased or controlled by VCM on BLM administered public lands. Claim names and BLM serial numbers are provided below.

- Rustlers #1 AA034427
- Rustlers #2 AA034428
- Rustlers #3 AA034429

3.2 Land Status

The proposed mining and related activities will occur on federal mining claims, that pre-date state selection of the lands in this area. Three sections including the sections in which subject claims lie was not part of the original selection, but have been ANILCA top filled. The BLM, Glennallen Field

Office administers the federal mining claims in the plan area. There are no private lands are located within the plan boundary.

The claims are located in Sections 11 and 14 of Township 20 South Range 2 East, Fairbanks Meridian (Latitude 63.185 Longitude 147.307).

3.3 Disturbance from Past and Present Operators

There is approximately 3 acres of existing disturbance within the plan area. All existing disturbance is on public lands administered by the BLM. VCM will take responsibility for mining-related disturbance within the plan boundary.

3.3.1 Surface Water Bodies

White Creek flows through the claim block on the west side. White Creek has not been disturbed in this area by past operations. There is one existing low water crossing of White Creek in Rustlers #2 leading to an historic mining camp located in the southwest corner of Rustlers #3.

3.4 Existing Operations

3.4.1 History

Mining began in the area in 1903, with the discovery of placer deposits. After a small "rush" in 1904 and 1905, mining activity in the area was variable with techniques such as drift mining; booming and hydraulicking used to access and excavate the pay dirt. According to the Environmental Assessment, numerous different mining companies held the Valdez Creek properties from 1913 to 1949 and conducted a considerable amount of mining. Mining in the area was substantially reduced until open pit mining began in 1984 (BLM 1990).

Cambior Incorporated purchased the existing mining operations in November 1989 and shut down the operation in November 1990 to construct a new wash plant and settling/tailings impoundments (Cambior, 1991). According to facility personnel, the operation reopened in August 1990, with mining beginning in March 1991 and continuing until closure in September 1995.

After closure of the Valdez Creek Mine, there have been several other smaller mines operating further up the Valdez Creek valley.

3.4.2 Existing Operations

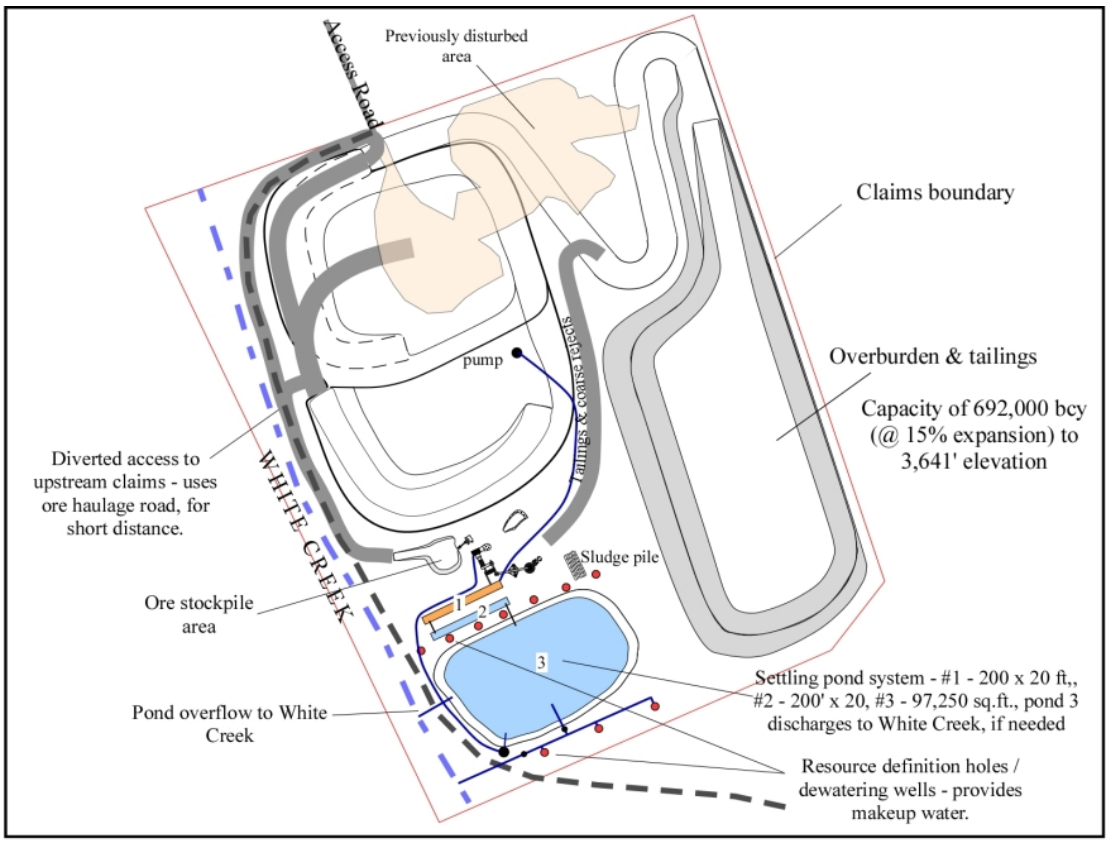
There are no current operations active within the plan boundary.

3.5 Proposed Operations

3.5.1 Plan Boundary

The proposed plan boundary will encompass approximately 20 acres as shown in Figure 3.

Figure 3: Plan Boundary and Proposed Facilities



Mining plan for Rustler #1 - #3 mining claims on upper White Creek. Scale: 1" = 500'. The claims are located in the SE & SW quarter of section 11 & the NE & NW quarter of section 14, T 20 S, R 2 E, Fairbanks Meridian. Wash/recovery plant located at site with appropriate materials and water management.

3.5.2 Project Description

Mining is expected to continue for approximately one year and an additional summer season for reclamation. Mining activities will be undertaken during the months of June to early October (weather permitting).

3.5.3 Mining

The pit will be mined in two phases. Overburden from Phase I will be moved to the side-hill pile and overburden from Phase II will be backfilled, to the extent possible, in Phase I pit. The pit will be approximately 1,240 feet x 530 feet at the surface (total of both phases) and roughly 55 feet deep.

Overburden and tailings will be stored above the pit and wash plant and has a capacity of 692,000 bank cubic yards (bcy) [versus loose cubic yards (lcy)] of material at a 15% expansion. Overburden is anticipated to be dominantly gravels and cobbles. If minable sit layers are encountered they will be segregated for use in reclamation.

As ore is encountered in the pit, it will be hauled to a stockpile located just upstream from the final pit rim.

Mining will be undertaken during the months of June to September and possibly a little into October as weather allows.

3.5.4 Processing

A wash plan will be operated for about half of the operating season at approximately 150 yd^3 per hour. The wash plan will utilize approximately 3,000 gpm pumped from Pond 3. An excavator or loader will be used to feed a Derocker. Oversize material from the Derocker will be separated and hauled to the overburden pile while the remainder will be processed through a 5 to 6 channel sluice system to recover the placer gold. A dewatering screen will separate solids from the sluice discharge and the solids will report to a transfer conveyor to a downstream stacking conveyor. The stacked tailings will then be hauled to the overburden stockpile. The water will report to the settling pond system to allow solids to settle.

3.5.5 Access and Roads

Access is by existing gravel road. The road leaves the state maintained Denali Highway near the east end of the Susitna River bridge. The road proceeds up the Susitna River valley on the east side to Valdez Creek, then up Valdez Creek to White Creek, and up White Creek to the project.

Haulage roads will also be constructed within the project area. The main haulage road, from the pit to the overburden stockpile will be 64 feet wide and constructed with berms where required.

Two narrower hauls road with a running width of 16.5 feet will be constructed. One will be for haulage of ore from the pit to the wash plant and the other will be from the wash plant site to the overburden stockpile area. With berms the total width of disturbance will be approximately 37 feet.

Access to upstream claims will be provided by a road located on the west side of the pit. This will partially coincide with the ore haulage road.

3.5.6 Camp and Employees

There will be no onsite camp facilities. Mine employees will stay at the Gracious House at mile 82 on the Denali Highway. There will be 12 employees.

3.5.7 Equipment List

The expected equipment list is provided in Appendix A.

3.5.8 Water Use

Dewatering will be used to facilitate mining the pit areas. Six dewatering wells will be located upstream of the pit which will each pump up to 300 gpm. Water will be discharged directly to White Creek. Any water located in the pit will be pumped from a sump with a 6-inch pump capable of pumping 1,300 gpm. This water will be discharged to Pond 1 and 2 alternately.

An intercept pond or trench may be constructed uphill of the active mining area to collect water and divert it away from the pit. This water would be diverted to Pond 1 if settling is needed to meet discharge requirements or directly to White Creek if settling is not needed. At this time this option is not anticipated to be necessary.

Initial and makeup water will be from the dewatering operation. In the event insufficient water is available from dewater (considered to be highly unlikely) makeup water will be drawn from White Creek.

Water flow to the wash plant will be from Pond 3 at approximately 3,000 gpm (401 ft^3/minute).

Overflow from the settling pond system will report to White Creek if it meets appropriate discharge standards under a Mechanical Placer General Permit. Flocculants will be used if necessary to achieve discharge standards.

VCM will work with ADF&G and BLM to determine the appropriate flocculant system. Water Management Plan (Appendix C) contains information on the flocculant system proposed for use on the project.

3.5.9 Material Balance

The approximate amount of material to be processed is provided in Table 3-1 below.

Table 3-1: Material Balance

Description/Source	Phase 1 (yd^3)	Phase 2 (yd^3)	Total (yd^3)
Overburden	385,000	355,000	740,000
Ore	55,000	55,000	110,000
Total	**440,000**	**410,000**	**850,000**
Pit to Stockpile			385,000
Pit to pit (Phase 2 pit into Phase 1 pit)			355,000
Pit(s) to Processing Plant			110,000
Processing Plant to Overburden Stockpile			110,000
Total Stockpile			**495,000**

3.5.10 Surface Disturbance and Proposed Disturbance

The project area includes disturbance created by prior mining operations and new proposed disturbance as shown in Figure 3 and quantified in Table 3-1. Reclamation of all these areas will be carried out by VCM. Preparing undisturbed areas will entail stripping the surface organic materials and available topsoil and staging it nearby for reclamation use. Topsoil will be stripped with a dozer or loader. There is no timber within the proposed mining area.

Table 3-2: Proposed Disturbance

	AREA, SQ. FT.			
DISTURBANCE	**TOTAL**	**NEW**	**EXISTING**	**COMMENTS**
Pit	517,145	517,145		Surface expression of pit
OB/Tailings pile	469,788	469,788		
Ore storage / mill / settling ponds	280,617	280,617		
Road to storage sites	99,456	99,456		
Diverted access road to upper White Creek	51,440	51,440		Assumes 20 foot width
Road mill site to OB/tailings storage site	33,200	33,200		Assumes 40 foot width to existing road
Previous disturbance in pit/road/storage area		-119,000	119,000	Difficult to allocate to specific disturbance
Total	1,451,646	1,332,646	119,000	Area disturbance, acres: 33.3 (rounded to 34 acres)
Total (acres)	**34**	**31**	**3**	

3.5.11 Solid and Hazardous Waste

It is not anticipated that solid or hazardous waste will be stored or disposed of in the plan area. Solid waste will be transported to existing borough facilities for disposal. If any potentially hazardous waste is generate it will be taken to an approved facility for recycling or disposal.

3.5.12 Public Safety

Mining activity will occur on public lands. As an MSHA regulated minesite, public access to the site will be restricted to those with proper MSHA training and personal protective gear or when escorted by mine personnel after receiving appropriate training. Signs will be posted warning the public that it is an active mining area and that they must check in with mining personnel prior to entering the site and to be escorted through the site.

Other general safety measures used at the mine site include the following:

- Warning signs will be posted in areas where flammable materials and hazardous materials are stored and in areas where conditions warrant posting signs;
- Training will provided for employees as required by MSHA; and

3.6 Design Features (Applicant - Committed Environmental Protection Measures)

Design features (applicant-committed environmental protection measures) have been developed as a way of minimizing or avoiding environmental impacts. Additional detail is presented in the following sections.

3.6.1 Air Quality

Because of the generally wet conditions at the site dust generation is not expected to be significant. Should unusually dry conditions develop, VCM will be prepared to suppress dust using a water tanker, sprinklers, or water hoses.

3.6.2 Stormwater

Best management practices will be used to limit erosion and sediment transport from proposed facilities and disturbed areas during construction and operation. Management practices may include, but will not be limited to, diversions and routing of stormwater away from mining and process components using accepted engineering practices, such as diversion ditches, sediment traps, and rock and gravel covers.

3.6.3 Cultural Resources

Pursuant to 43 CFR 10.4(g), VCM will notify the BLM authorized officer, by telephone and with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4(c) and (d), VCM will immediately stop all activities in the vicinity of the discovery and not commence again for a maximum of 30 days or when notified to proceed by the BLM authorized officer.

VCM will not knowingly disturb, alter, injure or destroy any historical or archaeological site, structure, building or object. If VCM discovers any cultural resource that might be altered or destroyed by operations, the discovery will be left intact and reported to the authorized BLM officer.

3.6.4 Fuel and Hazardous Materials Storage

At this time it is not anticipated that there will be bulk fuel storage on site. Fuel will be transported to the site daily for refueling of equipment and day tanks for pumps/generators. The fuel truck will not remain onsite overnight unless there are night shift operations.

All hazardous material (i.e., petroleum product) will be monitored through the Spill Prevention Control and Countermeasures Plan (SPCC) per federal regulation 40 CFR 112. VCM will be required to comply with their designed SPCC at all times and report to the ADEC, BLM and the EPA for any and all events related to their hazardous material program. Fuel and other petroleum products and other hazardous materials shall be stored in containers designed to hold that product, identified the contents. Fuel tanks shall be located at least 40 feet from any building and 100 feet from surface waters.

Reagents stored in vessels of 55 gallons and larger capacity, or any size containers that are situated where a spill may potentially reach any type of water body (ground and/or surface water) or watercourse will be placed in secondary containment. Secondary containment is defined as a "diked," impermeable impoundment capable of permanently containing 110% of the volume of the largest independent container plus sufficient freeboard for accumulation of rain/snowmelt water.

Appropriate spill response equipment and supplies will be on hand when hazardous materials or petroleum products are stored or used.

All spills of oil or hazardous substances will be reported to ADEC at (800) 478-9300, with a copy to BLM Spill Reporting Official at (800) 478-1263. Spill reporting requirements are:

- Spills of any amount of oil or hazardous substances to water outside secondary containment, or greater than 55 gallons inside secondary containment must be reported as soon as possible after becoming aware of the spill.
- Spills of more than 55 gallons to land must also be reported as soon as possible after becoming aware of the spill.
- Spills to land of more than 10 gallons but less than 55 gallons must be reported within 48 hours of becoming aware of the spill.
- For spills of less than 10 gallons, the applicant will submit a written report to ADEC summarizing those spills during that month.

All spills shall be cleaned up immediately taking precedence over all other matters except the health and safety of personnel. The applicant, VCM, shall be liable for damages to the natural resources of the United States resulting from any potential negligent management of petroleum products and/or wastes, hazardous materials and/or wastes, and solid materials and wastes.

3.6.5 Lighting

Lighting will be directed onto the pertinent work areas only and away from adjacent areas not in use with safety and proper lighting of the active work areas being the primary goal.

3.6.6 Reclamation

Final mine closure will include grading of all disturbed facilities to approximate previous natural design with maximum remaining slopes of 3H:1V, removal of all facilities and associated equipment and draining and reclaiming all ponds. A Reclamation Plan has been developed and is included in Appendix B.

3.6.7 Invasive and non-invasive Species

During vegetation establishment weed control practices will be implemented to limit the growth and spread of invasive /non-native species to ensure that revegetation is successful. The control program may include the use of weed-free straw in the reclamation program, and all seeds shall be tested for noxious weeds before planting (Certified Weed Free Seed). If noxious weeds are found, the seed will be rejected. The primary method of control will be seeding of disturbed areas as soon as practicable after the seedbed has been prepared.

3.6.8 Fire Management

Valdez Mining Company will comply with applicable federal and state fire laws and regulations and shall take reasonable measures to prevent and suppress fires in the area of operations. VCM and contractors will be required to carry fire extinguishers in their vehicles to suppress small fires.

4 Applicant Statement of Responsibility

Valdez Creek Mining recognizes its responsibility in the use of public (state/federal) lands, and accepts that responsibility in agreeing to reclaim the proposed Valdez Creek Mining project site. Valdez Creek Mining would meet the requirements of its reclamation plan and return the site to a safe and stable condition consistent with the approved post-mining land use. Valdez Creek Mining would meet required local, state, and federal regulations regarding reclamation of any surface area affected by the mining and processing operations. Reclamation activities and post-reclamation maintenance of remaining structures are Valdez Creek Mining's responsibility.

In the event a new operator/claim owner assumes control of the proposed Valdez Creek Mining project, at that time, the new operator or land owner would agree to assume responsibility for the reclamation and maintenance of any affected land and structures that are the subject of this Plan or existing permits. VCM and the new operator/land owner would request transfer of all applicable state and federal permits upon notifying BLM within 30 calendar days of any change of operator. This notification will include and change in corporate point of contact or in the mailing address of the operator or corporate point of contact. The new operator/land owner would provide evidence that a surety is filed with ADNR that would cover reclamation of disturbed lands, as well as post-reclamation maintenance of remaining structures.

5 Acknowledgements

A. It is Understood that should the Nature of the Operation Change a Modified or Supplemental Plan of Operations and Reclamation may be required.

B. It is understood that Approval of this Plan of Operation and Reclamation Plan (Appendix B) does not constitute: (1) Certification of Ownership to Any Person Named Herein and (2) Recognition of the Validity of any Mining Claim Herein.

C. It is understood that a Bond Equivalent to the Actual Cost of Performing the Agreed upon Reclamation Measures will be required before this Plan can be approved. Bonding and Any Bond Reduction Amounts will be set on a Site-Specific Basis by the Lead Agency in Coordination with the Cooperating Agencies.

D. It is understood that Approval of this Plan does not relieve me of my Responsibility to comply with any other Applicable State or Federal Laws, Rules or Regulations.

E. It is understood that any Information provided with this Plan that is Marked Confidential will be treated by the Agency in Accordance with that Agency's Laws, Rules and Regulations.

I/We have reviewed and Agree to Comply with all Conditions in the Plan of Operations and Plan of Reclamation (Appendix B), including the Recommended Changes and Reclamation Requirements.

I/We understand that the Bond will not be released until the BLM or the State Agency in Charge gives written Approval of the Reclamation Work.

6 References

Bureau of Land Management. Denali Mine, 1990 - 1994 Environmental Assessment. Prepared for BLM by Environmental Services, Ltd., May 1990.

Cambior Alaska. Letter from Douglas Nicholson, Chief Engineer, Cambior Alaska, Inc. to Director,

Waster Division, Region X U.S. EPA, concerning Discharge Monitoring Reports for NPDES permit

AK-002497-0, for the period 12/10/90 through 11/30/91. November 29, 1991.

U.S. Environmental Protection Agency, 1992, Site Visit Report: Valdez Creek Mine Cambior Alaska Incorporated, July 2992.

Wright, Stoney J., 2008. *A Revegetation Manual for Alaska*. Alaska Plant Material Center, August.

Appendix A: Equipment List

List of Current Equipment on Site - Roosevelt Creek Alaska

ROLLING STOCK

- D-9 CAT DOZER
- 955 CAT 4--1 BUCKET TRACK LOADER
- 400 HITACHI EXCAVATOR 2.5 YARD BUCKET
- 350 CAT EXCAVATOR 2.5 YARD BUCKET
- 3OO KOMATSU EXCAVATOR 2 YARD BUCKET
- 2---966 CAT 3.5 YARD LOADERS
- 1--988 CAT 5 YARD LOADER
- 1--KOBELCO 4YARD PLUS 8 FOOT FORK LOADER
- 1--LORAIN 4 YARD LOADER
- 1--MOXEE 25 YARD OFF ROAD ARTICULATED DUMP TRUCK
- 1--TEREX 25 YARD OFF ROAD ARTICULATED DUMP TRUCK
- 2--NORTERN LIGHTS GENERATORS
- 1 – 4-LIGHT DIESEL LIGHT PLANT

GOLD EQUIPMENT

- 10X20 FOOT DEROCKER GOLD PLANT WITH SLUICE SYSTEM
- 150 YPH 1,800 YARDS PER DAY PRODUCTION
- 8X16 FOOT SUPER SLUICE GOLD PLANT WITH SLUICE SYSTEM
- 150 YPH 1,800 YARDS PER DAY PRODUCTION
- GOLDFIELD YUKON TROMMEL GOLD PLANT WITH SLUICE SYSTEM
- 30 YPH 400 YARDS PER DAY PRODUCTION
- 8X20 FOOT DOUBLE SCREEN PLANT WITH VIBRATING GRIZZLY FEEDER
- 70 YPH 8OO YARDS PER DAY PRODUCTION

GOLD RECOVERY EQUIPMENT

- 1--4X8 CARTER TABLE
- 1--4X8 PRODUCTION TABLE
- 1--GOLDFIELD FINE GOLD RECOVERY TABLE
- 1-- GOLDFIELD MODEL 2 GOLDFIELD RECOVERY TABLE
- 1--10 INCH JAW CRUSHER
- 1 --20 INCH COMPACT CRUSHER
- 1-- 18 INCH X 10 FOOT REVERSABLE SPIRAL
- 1--10 INCH X 3 FOOT REVERSABLE SPIRAL
- 1--GOLD TRON DOUBLE JIG
- MISC GOLD SAMPLING PLANTS

LEASED EQUIPMENT NOT ON SITE

- 1-- 385 OR EQUILVELENT CAT EXCAVATOR 8 YARD BUCKET
- 3---740 CAT 45 YARD ARTICULATING OFFROAD DUMPTRUCKS
- 5--GODWIN DIESEL TRAILOR MOUNTED WATER PUMPS 6 TO 10 INCH
- 2--70 KW DIESEL TRAILER MOUNTED GENERATORS

Appendix B: Reclamation Plan

Appendix B
Reclamation Plan

Valdez Creek Mining LLC

73 Broad Street
Red Bank, NJ 07701

SRK Consulting (U.S.), Inc.
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SRK Project Number: 384500.010

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Author:
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Peer Reviewed by:
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1 Introduction

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1.1 Purpose

This document describes the proposed mining activities and describes the proposed operating and reclamation techniques to be used to comply with federal and state laws.

1.2 Location and Unpatented Federal Mining Claims

The Project is located in south central Alaska at the location shown on Figure 1. Access is from the Denali Highway and follows a gravel road that proceeds up the Susitna Valley, up Valdez Creek, and then up White Creek. This road is used by the general public and other placer miners in the area. No off road access is required to access the site.

The mining operation will be located on the Unpatented Mining Claims listed:

- Rustler #1 AA034427
- Rustler #2 AA034428
- Rustler #3 AA034429

1.3 Land Status

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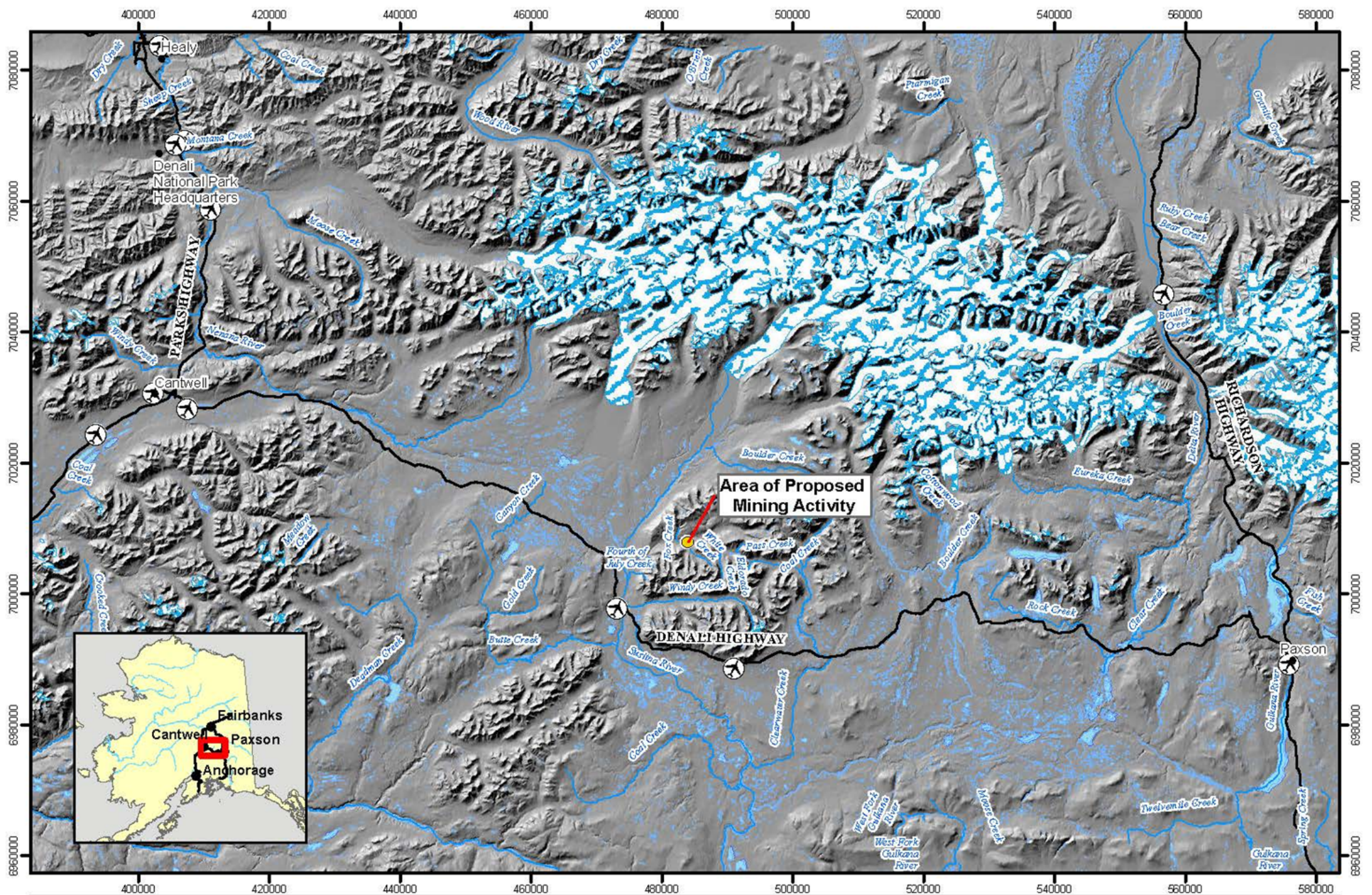


Figure 1: General Location Valdez Creek Project

Valdez Creek Mining LLC Alaska	REV NO. A
	AUTHOR: RDI-MRA
	REVIEWED BY:
DATE: 3/26/2013	FILE: SRK_GeneralLocationMap_8x11L_v01.mxd

1.4 History

Mining began in the area in 1903, with the discovery of placer deposits. After a small "rush" in 1904 and 1905, mining activity in the area was variable with techniques such as drift mining; booming and hydraulicking used to access and excavate the pay dirt. According to the Environmental Assessment (BLM 1990), numerous different mining companies held the Valdez Creek properties from 1913 to 1949 and conducted a considerable amount of mining. Mining in the area was substantially reduced until open pit mining began in 1984.

Cambior Incorporated purchased the existing mining operations in November 1989 and shut down the mining operations in August 1990 to construct a new wash plant and settling/tailings impoundments (Cambior 1991). The operation reopened with mining beginning in March 1991 and continuing until closure in September 1995 (EPA 1992).

After closure of the Valdez Creek Mine, there have been several other smaller mines operating further up the Valdez Creek valley.

1.5 Agency Requirements for Reclamation and Closure

1.5.1 Bureau of Land Management

Under the 43 CFR § 3809.420 all mining operations are subject to performance standards for notice or plan of operations and specifically for reclamation:

(b) (3) *Reclamation*

(i) At the earliest feasible time, the operator shall reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site and off-site damage of the Federal lands.

(ii) Reclamation shall include, but shall not be limited to:

(A) Saving of topsoil for final application after reshaping of disturbed areas has been completed;

(B) Measures to control erosion, landslides, and water runoff;

(C) Measures to isolate, remove, or control toxic materials;

(D) Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and

(E) Rehabilitation of fisheries and wildlife habitat.

(iii) When reclamation of the disturbed area has been completed, except to the extent necessary to preserve evidence of mineralization, the authorized officer shall be notified so that an inspection of the area can be made.

1.5.2 Alaska Department of Natural Resources (ADNR)

VCM's long-term reclamation goals during and after mining operations are to shape, revegetate, or otherwise stabilize the land. Final reclamation goals will meet the objectives that are consistent with

the designated post-mining land uses. The current designated post-mining uses for the proposed project area are for wildlife habitat, recreation and minerals exploration and/or extraction, as prescribed by AS 27.19.020 Reclamation Standard:

> "A mining operation shall be conducted in a manner that prevents unnecessary and undue degradation of land and water resources, and the mining operation shall be reclaimed as contemporaneously as practicable with the mining operation to leave the site in a stable condition."

VCM will incorporate practices that include contouring and stabilizing disturbed areas using best engineering practices to create seed beds that invites and promotes early seral colonization, using commercially available native plant species, if available, and soil amendments with proven track records.

VCM will continue to adhere to the above goals in developing and implementing this Reclamation Plan for the proposed project. Therefore, to be consistent with 43 CFR § 3809.420 and AS 27.19.020 the objectives of the Reclamation Plan are:

- provide for public safety
- stabilize and protect surficial soil materials from wind and water erosion
- stabilize steep slopes through contouring and leveling to provide rounded land forms and suitable seedbeds
- establish a productive vegetative community based on the applicable land use plan and designated post-mining land uses
- design closure plans, to the extent feasible, that would address community concerns and be aligned with local community land use and development objectives.

Attainment of these objectives would be measured by the success of concurrent reclamation of disturbed areas and would include long-term mine revegetation research and evaluation. VCM will work with ADNR, Division of Agriculture/Plant Materials Center in the implementation and evaluation of both concurrent and long-term reclamation activities.

For the purposes of this Reclamation Plan, the term "growth media" refers to all native (in-place) soil material with the physical and chemical properties capable of germinating and sustaining vegetation growth with or without amendments, and is interchangeable with the terms "topsoil" and "overburden"[1] in relation to the proposed project site. Overburden material suitable for use as growth media is unconsolidated material that may consist of terrace gravels, colluvium, loess, and other non-organic material that lies between the topsoil horizon (where present) and bedrock.

[1] "topsoil" is the upper, outermost layer of soil, usually the top 2 inches (5.1 cm) to 8 inches (20 cm). It has the highest concentration of organic matter and microorganisms
"overburden" is the material that lies above an area of economic or scientific interest. Overburden is also described as the soil and other material that lies above a specific geologic feature.

2 Applicant Information

Date:	April 2013
Location:	Township 20S., Range 2E., Fairbanks Meridian, Sections 11 and 14 Latitude 63.185 Longitude 147.307
Name of Facility:	Rustler Claims
Type of Facility:	Placer Gold Mine and Wash Plant Operation
Business Name:	Valdez Creek Mining LLC. 73 Broad St. Red Bank, NJ 07701
Telephone:	(732) 939-0048

2.1 Designated Contact Person

Name:	John Cioffoletti
Title:	CIO
Telephone Number:	(732) 939-0048

2.2 Applicant Statement of Responsibility

VCM recognizes its responsibility in the use of public (Federal) lands, and accepts that responsibility in agreeing to reclaim the site. VCM will meet the requirements of its reclamation plan and return the site to a safe and stable condition consistent with the approved post-mining land use. VCM will meet required local, state, and federal regulations regarding reclamation of any surface area affected by the mining and processing operations. Reclamation activities and post-reclamation maintenance of remaining structures are VCM's responsibility.

In the event a new operator/land owner assumes control of the project, at that time, the new operator or land owner will agree to assume responsibility for the reclamation and maintenance of any affected land and structures that are the subject of this plan or existing permits. The new operator/land owner will request transfer of all applicable state and federal permits.

3 Project Description

The pit will be mined in two phases. Overburden from Phase I will be moved to the side-hill pile and overburden from Phase II will be backfilled, to the extent possible, in Phase I pit. The pit will be approximately 1,240 feet x 530 feet at the surface (total of both phases) and roughly 55 feet deep.

Overburden and tailings will be stored above the pit and wash plant and has a capacity of 692,000 bank cubic yards (bcy) [versus loose cubic yards (lcy)] of material at a 15% expansion. Overburden is anticipated to be dominantly gravels and cobbles. If minable sit layers are encountered they will be segregated for use in reclamation.

As ore is encountered in the pit, it will be hauled to a stockpile located just upstream from the final pit rim.

Mining will be undertaken during the months of June to September and possibly a little into October as weather allows.

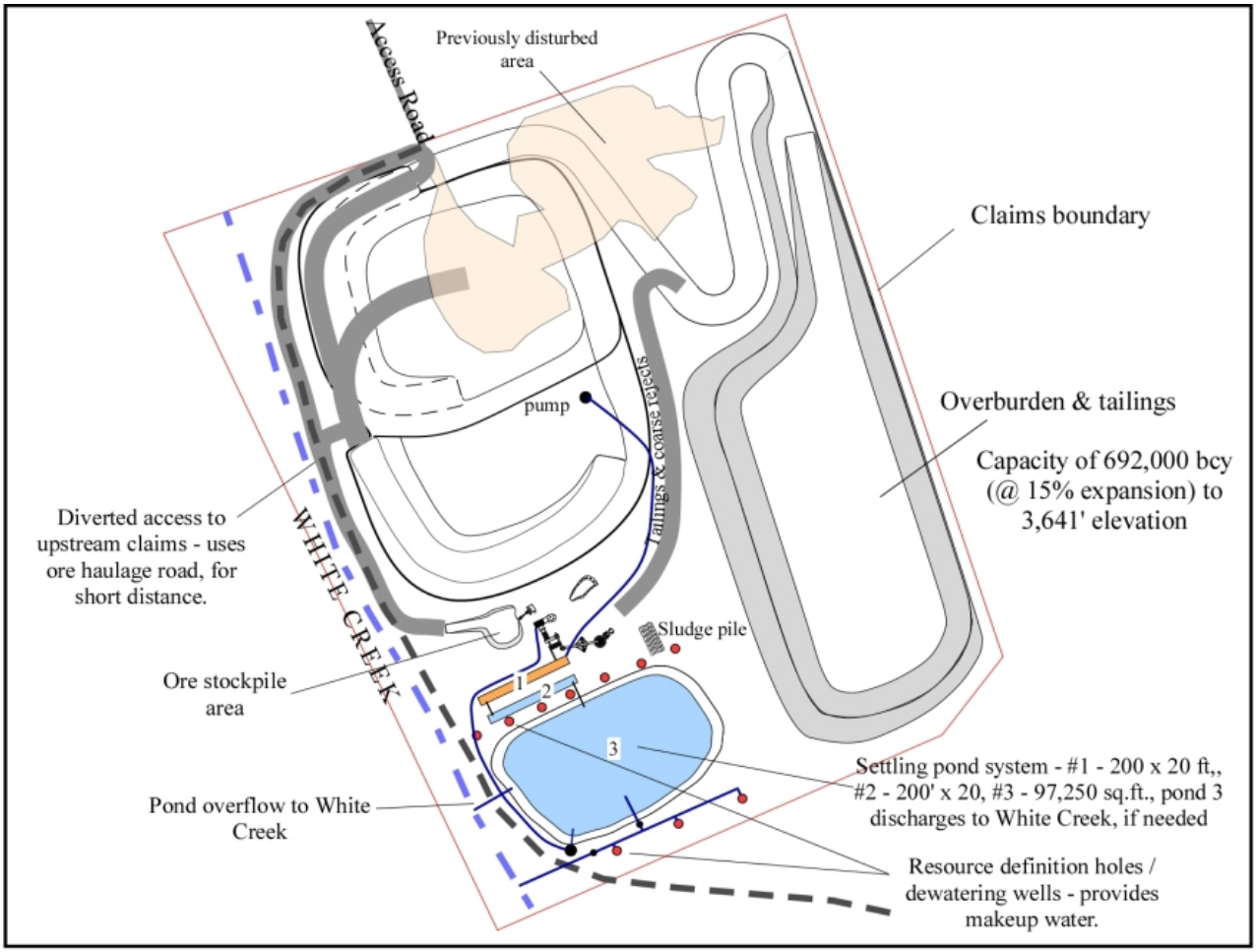
3.1 Surface Disturbance and Proposed Disturbance

The project area includes disturbance created by prior mining operations and new proposed disturbance as shown in Figure 2 and quantified in Table 1. Reclamation of all these areas will be carried out by VCM.

Table 1: Proposed Disturbance

	AREA, SQ. FT.			
DISTURBANCE	**TOTAL**	**NEW**	**EXISTING**	**COMMENTS**
Pit	517,145	517,145		Surface expression of pit
OB/Tailings pile	469,788	469,788		
Ore storage / mill / settling ponds	280,617	280,617		
Road to storage sites	99,456	99,456		
Diverted access to upper White Creek	51,440	51,440		Assumes 20 foot width
Road mill site to OB/tailings storage site	33,200	33,200		Assumes 40 foot width to existing road
Previous disturbance in pit/road/storage area		-119,000	119,000	Difficult to allocate to specific disturbance
Total	1,451,646	1,332,646	119,000	Area disturbance, acres: 33.3 (rounded to 34 acres)
Total (acres)	34	31	3	

Figure 2: Mining Area



Mining plan for Rustler #1 - #3 mining claims on upper White Creek. Scale: 1" = 500'. The claims are located in the SE & SW quarter of section 11 & the NE & NW quarter of section 14, T 20 S, R 2 E, Fairbanks Meridian. Wash/recovery plant located at site with appropriate materials and water management.

4 Reclamation Plan

4.1 Proposed Post-Mining Land Use

Post-mining land use objectives are recreation, wildlife habitat and minerals exploration and/or extraction.

4.2 General Reclamation Measures to Create a Productive Post-Mining Land Use

Surface management regulations 43 CFR §3809.420 establish the performance standards that apply to this Plan.

Measures to be taken to prevent unnecessary and undue degradation at the proposed Project are listed below. These measures will be implemented during the design, construction, operation, and closure of the Project.

Regulated components of the facility will be designed and constructed to meet or exceed BLM/ADEC/ADNR design criteria.

- Mineral exploration and development drill holes, monitoring and observation wells, and production wells subject to 18 AAC 80.015 will be properly abandoned to prevent potential contamination of groundwater resources;
- Roads will be constructed to the minimum necessary width;
- Regulated wastes will be managed according to relevant regulations;
- Surface disturbance will be minimized while optimizing the recovery of mineral resources;
- Fugitive dust and other air emissions from disturbed and exposed surfaces will be controlled in accordance with ADNR regulations and permits;
- The operator will comply with applicable federal and state water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 et seq. as applicable);
- Surface water drainage control will be accomplished by diverting storm water, isolating facility runoff, and minimizing erosion; and
- Where suitable as a growth media, surface material will be managed as a growth media resource and removed, stockpiled, and replaced during reclamation.

This Plan will be implemented to address earthwork and recontouring, revegetation and stabilization, detoxification and disposal, and monitoring operations necessary to satisfactorily reclaim the proposed disturbance including: roads, process ponds, stockpiles, buildings and equipment, and other ancillary areas.

4.3 Growth Media and Revegetation

4.3.1 Growth Medium Placement

During final reclamation, salvaged growth media will be placed over the surface of the facilities. Before placement of the growth medium, the subsoil surface will be roughened by ripping or disking to ensure good contact. The growth medium will be dumped and spread using a minimum of passes to limit compaction. Controlled dozer tracking may be performed during placement of the growth medium to roughen the surface, lightly compact the soil, increase water retention, and prevent erosion.

The site includes areas that have been previously disturbed without salvaging growth media and generally Alaska has very thin topsoil (Wright, 2008). Should a sufficient quantity of growth media not be available for reclamation of the proposed disturbance VCM will work with BLM representatives to prioritize use of available growth media.

4.3.1 Seedbed Preparation

Seedbed preparation and reseeding efforts for areas to be revegetated will take place after placement of the growth medium. Compacted surfaces will be loosened and left in a rough condition by ripping. The prepared surfaces will then be seeded using the seed mix in Table 2.

4.3.2 Revegetation, Seeding and Planting

All reclaimed surfaces will be revegetated to control runoff, reduce erosion, provide forage for wildlife and livestock, and reduce visual impacts. Seed will be applied with a mechanical broadcaster.

4.3.3 Fertilizers, Mulches, and Soil Amendments

Results from soil analyses and revegetation tests conducted during operation will be used to determine what, if any, organic matter and nutrients will be added to the prepared surfaces prior to or at the time of seeding.

4.3.4 Seeding Rates and Revegetation Methods

A proposed seed mix was taken from the report *A Revegetation Manual for Alaska* (Wright, 2008). The proposed seed mix is from the South Central Alaska area. Two seed mixes will be used at the site; upland for average moisture conditions and lowland for saturated moisture conditions. The seed mixes and application rates are shown in Table 2. Seed application will be accomplished by broadcast seeding. The seed mix may, upon approval, be modified over time as information is gained as per species suitability to site-specific conditions.

In areas adjacent to streams and creeks willow cuttings will be planted. Cuttings will be taken from nearby naturally occurring stands.

Table 2: Seed Mix for South Central Alaska[2]

Soil Group *(Refer to Soil Type Chart)*	**Seed Rate** *(Refer to Directions)*	**Species/Cultivar Selection** *(Refer to Species/Cultivar Characteristic Chart For Category Ratings)*		
High Organic **GW, GP**		Suggest fertilizer only. If seeding is stipulated use suggestions for MH, CH, OH Mesic or Xeric depending on site. Suggest scarification and fertilizer only. If seeding is stipulated use suggestions for GM, GC and soil moisture.		
		Soil Moisture Characteristics		
		Saturated (Hydric)	**Average (Mesic)**	**Very Dry (Xeric)**
GM, GC	**20**	**1** 'Norcoast' Bering hairgrass **1** 'Egan' American sloughgrass **1** 'Kenai' polargrass **1** 'Arctared' red fescue **2** 'Nortran' tufted hairgrass **2** 'Boreal' red fescue **2** 'Alyeska' polargrass **3** 'Sourdough' bluejoint reedgrass	**1** 'Norcoast' Bering hairgrass **1** 'Arctared' red fescue **1** 'Gruening' alpine bluegrass **2** 'Boreal' red fescue **2** 'Kenai' polargrass **2** 'Nortran' tufted hairgrass **2** Wainwright slender wheatgrass **3** 'Caiggluk' Tilesy sagebrush **3** 'Sourdough' bluejoint reedgrass *Note: If the area to be revegetated is adjacent to a coast line, consider using beach wildrye transplants.*	**1** 'Arctared' red fescue **1** Wainwright slender wheatgrass **1** 'Nortran' tufted hairgrass **1** 'Gruening' alpine bluegrass **2** 'Norcoast' Bering hairgrass *Note: If the area to be revegetated is adjacent to a coast line, consider using beach wildrye transplants.*
SW, SP, SM, SC **ML, CL, OL**	**40**			
MH, CH, OH	**30**	**1** 'Norcoast' Bering hairgrass **1** 'Arctared' red fescue **1** 'Egan' American sloughgrass **2** 'Alyeska' polargrass **2** 'Gruening' alpine bluegrass		

4.3.5 Control of Undesirable Species

During vegetation establishment weed control practices will be implemented to limit the growth and spread of invasive / non-native species to ensure that revegetation is successful. The control program may include the use of weed-free straw in the reclamation program, and all seeds shall be tested for noxious weeds before planting. If noxious weeds are found, the seed will be rejected. The

[2] Table from (Wright, 2008).

primary method of control will be seeding of disturbed areas as soon as practicable after the seedbed has been prepared.

4.3.6 Revegetation Scheduling

Reclamation activities will be timed to take advantage of optimal climatic conditions. Scheduling of reclamation activities will occur as soon as possible after the mining activities in a particular area are completed, thus minimizing erosion and sedimentation. General scheduling procedures to be followed include, but are not limited to, the following:

- Grading, drainage control establishment, and maintenance will be conducted in late spring to late summer;
- Seedbed preparation will be conducted prior to seeding; and
- Seeding will preferably be completed in mid to late fall. In some cases, early to mid-spring seeding will take place when weather constraints or other unavoidable circumstances preclude fall seeding.

During the life of the project, concurrent reclamation and interim reclamation will be performed wherever possible, to reduce erosion and weed invasion. The remainder of the revegetation will occur following the cessation of all site activities.

4.3.7 Interim Reclamation

Interim reclamation includes actions taken to stabilize disturbed areas during operation of the mine and prior to closure. The purpose of interim reclamation is to stabilize slopes and reduce erosion and sedimentation of water ways to protect water quality. When a disturbed area is not planned for use for an extended period it will be revegetated with the reclamation seed mix. If mining has been completed in an area and there are no future plans to reenter the area it will be reclaimed in accordance with the actions specific to the disturbance type as described elsewhere in this plan.

4.4 Other Reclamation (Historic Disturbance)

The project includes existing disturbance. VCM intends to take responsibility for reclamation activities for historic disturbances.

4.5 Proposed Reclamation Schedule

Proposed mining and reclamation activities will continue through 2014. Upon completion of mining it is anticipated that reclamation activities will take one year. Post-reclamation monitoring of water and vegetation will continue for an additional three years.

4.6 Post-Mining Contours and Topography

With the exception of the Phase II pit and overburden stockpile all disturbed areas will be regarded back to the approximate natural topography. The overburden stockpile will be regarded as described below.

4.7 Reclamation of Impoundments

The settling pond will be backfilled and the surface will be covered with three to six inches of growth media. The area will be revegetated as described in Section 4.3.2.

4.8 Reclamation of Overburden Piles

All overburden storage piles will be reclaimed as discussed below.

4.8.1 Regrading

All slopes will be regarded to a minimum slope of 3H:1V using a small dozer. Top and bottom (crest and toes) will be blended into the adjacent slope to minimize sharp features. If feasible slopes will be made to vary in order to minimize long linear features.

4.8.2 Growth Media Placement

Where available, six-inches of growth media will be placed on the top and slopes of the overburden stockpiles.

4.8.3 Revegetation

Disturbed areas will be lightly ripped to loosen and roughen the surface and seeded with the upland seed mix in accordance with Table 2 (Wright 2008).

4.8.4 Soil Stabilization

Successful revegetation approaching surrounding native vegetation densities will reduce surface erosion. Reducing slope steepness and rounding the toes and crests will also reduce erosion.

4.8.5 Stormwater Diversion and Controls

The overburden stockpile is located in an area not subject to a significant amount of stormwater run on. Adjacent slopes to the north and south grade to the west and the hillside to the east has a limited capture area. Therefore, no stormwater diversion is required to protect the overburden stockpile from erosion.

When final grading, contouring, and application of growth media have been completed, the overburden stockpile will be ripped along contours. Intervals between contour rips would be based on best engineering judgment and length of slope. The distance between drainage breaks will depend on the final slope angle, type of material on the surface of the overburden stockpile and best management practices (BMPs), as identified in the *Alaska Storm Water Guide* (ADEC 2011).

4.9 Reclamation of Impoundments and Ponds

4.9.1 Backfilling and Regrading

The dewatering pond will be backfilled with adjacent material and any built up perimeter area will be cut back down to match the surrounding topography. The disturbed surface will be covered with adequate growth media to re-establish a vegetative cover.

4.9.2 Revegetation

Disturbed areas will be lightly ripped to loosen and roughen the surface and seeded with the upland seed mix in accordance with Table 2.

4.10 Constraints on Estimated Time to Complete Reclamation

4.10.1 Weather

The time estimated to complete reclamation is based on the assumption that average weather for the area prevails. Unusual weather events of any type could extend the time for reclamation.

4.10.2 Seasonal Closure

Prior to freeze up at the end of the mining season cut banks, diversion ditches, settling ponds, overburden stockpiles, and other disturbed areas not concurrently reclaimed will be contoured and stabilized to minimize erosion and scouring from aufeis during the following spring breakup. The applicable BMPs (ADEC 2011) will be implemented for areas to control storm water runoff and spring breakup.

There will not be any bulk fuel storage tanks on site. Smaller quantities of lubricants and small equipment will either be stored in secure onsite facilities or removed from the site until operations begin again in the spring.

Periodic site inspections will occur during the winter months and in spring to monitor site conditions and potential aufeis that could alter stream flow and damage diversion and runoff control structure.

4.10.3 Temporary Closure

Temporary Closure means the cessation of the mining and milling operations for a period of not more than three years. If conditions require temporary closure to extend beyond three years, final reclamation will begin, unless an extension is requested by the company and approved by BLM. Temporary closure scenarios, which require modifications to the plan of operation, reclamation plan, or ADEC discharge permit, will be coordinated with and submitted to the appropriate BLM and State agencies for approval.

Temporary closure may include planned and unplanned cessation of the mining and wash plant operations. Planned temporary closures which have specific conditions defining their beginning and end include, but are not limited to the following:

1) Interruptions in the active beneficiation processes to provide planned periods of quiescence for metallurgical or operating reasons;
2) Any other planned condition, which will interrupt the active beneficiation process including modification to process components or suppressed metal market conditions;
3) Change in ownership requiring the temporary cessation of operations while operating permits are transferred to the new owner/operator.

Unplanned temporary closures may include, but are not limited to the following:

1) Closure because of unforeseen weather events;

2) A failure in a major system component or a process failure which causes the fluid management system or a portion thereof to shut down; or

3) The cessation of operations as a result of litigation.

VCM will notify BLM of any unanticipated suspension or cessation of operations expected to last more than ninety days or more within ten days of the first day of the temporary closure. The notice will state the nature and reason for the temporary closure, the anticipated duration of the temporary closure and any event that would reasonably be anticipated to result in either the resumption or abandonment of operations. Project operations must resume for not less than ninety consecutive days in order to terminate the temporary closure status. If a temporary closure extends beyond three years, BLM may deem project operations to be permanently abandoned or ceased, and whereupon final reclamation must commence unless otherwise agreed to by BLM. VCM will ensure that the project area is maintained in a safe and secure condition during a temporary closure and VCM will not allow the project area to be degraded or eroded during or as a result of the temporary closure. VCM will continue maintenance of all water diversions, monitoring and reporting required by the reclamation plan unless otherwise agreed to by the agencies.

Day tank fuel will be transferred off-site. Other supplies and equipment that could adversely affect public safety or the environment will be secured or temporarily removed from the site until operations one again commences.

The need for implementation of interim reclamation activities or final reclamation of the mine will be addressed on the basis of environmental monitoring results and consultation with the appropriate agencies.

4.10.4 Additional Ore Reserves

The start date for reclamation will also be dependent on the results of ongoing exploration and final feasibility studies. If additional reserves are located, an amended Mine Plan and reclamation plan would be submitted as required, and an extension of time for reclamation would be proposed.

4.11 Reclamation of Roads

Exploration, small vehicle mine roads, and haul roads without a defined post-mining use will be reclaimed concurrently, as they are no longer needed for access. Haul and small vehicle roads required during closure will be reclaimed, as they are no longer needed. The primary reclamation objectives for the roads will be long-term stabilization and surface water management. The road will be reclaimed by re-grading to control surface water, the surface scarified, covered with growth media (if necessary), and seeded (Table 2) for long-term stabilization.

Those portions of haul roads parallel to White Creek will be located on a bench outside of the riparian area. This road will not be reclaimed, as it will provide alternative post-mining access to upstream claims.

4.11.1 Recontouring or Regrading

All roads scheduled for reclamation will be recontoured to the approximate original topography or in a manner consistent with the final surrounding topography. This will be done by pulling in road safety berms, ripping the road surface, removing any culverts, and reestablishing drainage. Where roads were constructed by cutting, the edge berm and fill will be pulled back against the inside cut of the road. Dikes and ditches that will no longer be required will be regraded.

Since roads are constructed with near surface soils which will be replaced on the road surface during reclamation activities no growth media will be needed prior to seeding with the reclamation seed mix. The reclaimed surface will be prepared according to Section 4.8.1 and seeded according to Table 2.

4.12 Measures to Minimize Loading of Sediment Surface Waters

There are two creeks in the project area: Little Rusty Creek and White Creek. Proposed disturbance is not located within either of these streams. After final grading, contouring, and application of growth media have been completed, the disturbed areas will be ripped along contours. Intervals between contour rips would be based on best engineering judgment and length of slope. The distance between drainage breaks would depend on the final slope angle of the areas, and sediment controls will be based on BMPs (ADEC 2011).

VCM proposes to convey runoff from reclaimed areas and upstream undisturbed areas through the project site in a manner which will protect the reclaimed areas and prevent degradation of downstream water quality. Natural drainages will be re-established, and existing natural channels will be used.

4.12.1 Revegetation

Disturbed areas will be lightly ripped to loosen and roughen the surface and seeded with the upland seed mix in accordance with Table 2. Seedbed preparation and seeding will take place in the fall after regrading on reclaimed areas and broadcast seed will be covered by harrowing, raking, or other site specific appropriate methods.

4.12.2 Diversion Features and Swales

All diversion features and swales to control erosion after closure will be designed to limit erosion and scouring, and to discharge flows resulting from a 25 year, 24 hour storm. This design event was chosen because these facilities are considered to be temporary sediment control structures, which will only be required during mining activities and during the period required for establishing vegetation (ADF&G 1997).

4.12.3 Sediment Traps

Sediment traps are considered to be temporary sediment control structures, which will only be required during operations, reclamation activities and the period required for establishing vegetation. These facilities will be designed to safely accommodate flows generated by a 25 year - 24 your design storm. During operations, these facilities will be periodically maintained during reclamation

monitoring and will be removed when reclamation is deemed successful. Although unnecessary for sediment control after revegetative success, the sediment traps will provide a means of minimizing sediment migration from natural upgradient erosion until full, where after natural regrowth is expected to stabilize the surface.

4.13 Disposition of Buildings and Ancillary Facilities

All buildings and facilities associated with the project will be demolished unless a post-mining land use is identified and concurred with by the appropriate land management agency. Most of the building materials will be salvageable and will be removed from the site. The sites will then be covered with growth media and revegetated.

All reagents, chemicals and other hazardous or toxic chemicals will be removed from the site.

All water conveyance pipelines will be removed.

4.14 Surface Facilities or Roads not Subject to Reclamation

No surface facilities are currently planned to remain within the project boundary following reclamation. As deemed appropriate by BLM, any roads on public lands determined to be suitable for public access will not be reclaimed at mine closure.

4.15 Reclamation of Open Pits

The pit will be mined in two phases. Overburden from Phase I will be placed in the Overburden Stockpile and overburden from Phase II will be backfilled into Phase I. The Phase II section of pit will not be backfilled and will be allowed to fill with water and flow through re-connecting with White Creek. Prior to filling, the pit walls will be recontoured to minimum slope of 2.5:1 for safety and stability. Areas above the water out flow elevation will be seeded (Table 2), plugged if necessary, and some dormant cuttings planted to establish riparian zone along the pit lake shoreline (ADF&G 2005). The proposed pit lake would have an approximate depth of 60 feet with recharge from alluvial gravels and surface flow.

4.16 Post Reclamation Monitoring and Maintenance

The reclaimed site will be inspected on an annual basis in coordination with BLM and ADNR. The overburden stockpile will be monitored for excessive erosion.

Post-reclamation monitoring will commence on any reclaimed area following completion of the reclamation work for the area, and will occur until the project reclamation bond is released to VCM. Post-closure vegetation monitoring will consist of surveys coordinated with the BLM and the ADNR. These surveys will determine the re-vegetation success rate using a method approved by BLM and DNR (Section 5.2). Vegetation monitoring obligation will cease upon the BLM and ADNR's approval of site re-vegetation.

4.17 Reclamation of In-stream Mining

Not applicable

4.18 Statement of Effect of Proposed Reclamation on Future Mining

This reclamation plan has been developed to minimize the effect on future mining of known and developed mineral/metal reserves in the area. Pit backfilling has not prevented placer mining in the past and it is not anticipated to preclude future mining activities.

4.19 Drill Hole Plugging Procedures

4.19.1 Exploration Holes

Exploration hole will be abandoned by backfilling with cement or bentonite grout in accordance with ADEC regulations (18 AAC 80.015).

4.19.2 Monitoring and Dewatering Wells

Monitoring and dewatering wells no longer needed would be abandoned by plugging the well and removing the surface casing. Well abandonment will be conducted in accordance with ADEC regulations (18 AAC 80.015). Abandonment procedures generally include removal and disposal of pumps and piping, removal of the casing where possible, perforating the screened portion of the well, plugging of the well with an approved sealing material at total depth, removal of the collar, minor grading around the well site, and revegetating the area as appropriate (i.e., seeding, mulching, etc.).

5 Performance Goals

5.1 Water Quality

Surface water flowing from reclaimed area will meet the applicable ADEC Water Quality Standard for Settleable Solids and Turbidity.

5.2 Revegetation Success Criteria

A vegetative cover criterion where feasible of 70% would be achieved prior to requesting bond release and/or final abandonment of the project site[3]. Concurrent reclamation areas also would be required to meet the aforementioned criteria prior to VMC requesting bond release.

The reclamation goal of at least 30% vegetative cover over a three-year period is an interim action level criterion, which would indicate to VMC whether additional reclamation action would need to be taken to establish a viable vegetative cover and a continuing natural succession of plant species. Further action could include reseeding the area, additional application of soil amendments, and/or incorporation of additional growth media on a particular site or facility. VMC will be responsible for determining the cause and resolution of substandard revegetation cover.

[3] Alaska Reclamation Performance Standard (AAC 97.200) also defines successful re-vegetation as "re-vegetation, where feasible," that occurs "within 5-years after reclamation is completed, without the need for fertilization or re-seeding."

6 References

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Appendix C: Water Management Plan

Appendix C

Water Management Plan
and
Monitoring Plan

Valdez Creek Mining LLC

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SRK Project Number: 384500.010

April 2013

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Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (U.S.), Inc. (SRK) by Valdez Creek Mining LLC (VCM). These opinions are provided in response to a specific request from VCM to do so, and are subject to the contractual terms between SRK and VCM. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report.

List of Abbreviations

ADNR	Alaska Department of Natural Resources
ADEC	Alaska Department of Environmental Conservation
APMA	Annual Placer Mining Application
AAC	Alaska Administrative Code
AS	Alaska Statute
BLM	Bureau Land Management
BMP	best management practices
CFR	Code of Federal Regulations
GP	Alaska Pollution Discharge Elimination System for Mechanical Placer Miners General Permit No. AKF370000
Project	Rustler Claims placer mining project
SRCE	Standard Reclamation Cost Estimator Model
SWPPP	Storm Water Pollution Prevention Plan
VCM	Valdez Creek Mining LLC

Units of Measure

cfs	cubic feet per second
cms	cubic meters per second
gpm	U.S. Gallons per minute
ft	foot/feet
ft^2	square feet
ft^3	cubic feet
m	meter/meters
mi	miles
km	kilometers
mi^2	square miles
km^2	square kilometers
gpm	U.S. Gallons per minute
yd^3	cubic yard
byd^3	bank cubic yard
lyd^3	loose cubic yard

1 Introduction

Valdez Creek Mining LLC (VCM) is submitting this Water Management Plan (WMP) in conjunction with the permit application for the Rustlers Claims placer mining project (Project). The WMP was prepared in accordance with U.S. Bureau of Land Management (BLM) Supplement B – Water Management Plans for Annual Placer Mining Applications (APMA).

1.1 Purpose

This document describes the water management plan that will be implemented as part of the proposed Rustlers Claims placer mining project. Descriptions of the drainage basin, the main stream channel, hydrologic characteristics and the means that the operator should control water usage associated with the proposed mine development plan.

1.2 Location and Unpatented Federal Mining Claims

The Project is located in south central Alaska at the location shown on Figure 1. Access is from the Denali Highway and follows a gravel road that proceeds up the Susitna Valley, up Valdez Creek, and then up White Creek. This road is used by the general public and other placer miners in the area. No off road access is required to access the site.

The mining operation will be located on the Unpatented Mining Claims listed:

- Rustlers #1 AA034427
- Rustlers #2 AA034428
- Rustlers #3 AA034429

1.3 History

Mining began in the area in 1903, with the discovery of placer deposits. After a small "rush" in 1904 and 1905, mining activity in the area was variable with techniques such as drift mining; booming and hydraulicking used to access and excavate the pay dirt. According to the Environmental Assessment, numerous different mining companies held the Valdez Creek properties from 1913 to 1949 and conducted a considerable amount of mining. Mining in the area was substantially reduced until open pit mining began in 1984.

Cambior Incorporated purchased the existing mining operations in November 1989 and shut down the mining operations in August 1990 to construct a new wash plant and settling/tailings impoundments (Cambior 1991). The operation reopened with mining beginning in March 1991 and continuing until closure in September 1995 (EPA 1992).

After closure of the Valdez Creek Mine, there have been several other smaller mines operating further up the Valdez Creek valley.

1.4 Bureau of Land Management Requirements for Mining Operations

Under the BLM's Surface Management Handbook H-3809-1 (2012), and CFR § 3809.401(b) (2), all mining operations require a water management plan as part of the Description of Operations

Elements. In conjunction with State of Alaska APMA process, the BLM has developed Supplement B –Water Management Plan for placer mining operations that requires details associated with how the mine operator will control water usage in order to prevent unnecessary or undue degradation to the environment. That is:

(i) Description of the drainage basin, the stream course and related floodplain areas that the mining activity may affect, including the point source for all water that will be used in the operations

(ii) Description of the hydrologic parameters for the drainage area of interest, including the annual precipitation, daily discharge hydrograph as well as estimates of minimum, mean and maximum flow discharges and runoff amounts.

(iii) Description of the proposed placer mining operations water usage as it relates to the implementation of settling ponds, the wash plant's water volume and discharge requirements, and any stream course diversions or bypass design information.

2 Applicant Information

Date:	April 2013
Location:	Township 20S, Range 2E, Fairbanks Meridian, Sections 11 and 14 Latitude 63.185 Longitude 147.307
Name of Facility:	Rustler Claims
Type of Facility:	Placer Gold Mine and Wash Plant Operation
Business Name:	Valdez Creek Mining LLC. 73 Broad Street Red Bank, NJ 07701
Telephone:	(732) 939-0048

2.1 Designated Contact Person

Name:	John Cioffoletti
Title:	CIO
Telephone Number:	(732) 939-0048

2.2 Applicant Statement of Responsibility

VCM recognizes its responsibility in the use of public (Federal) lands, and accepts that responsibility in the prevention of unnecessary and undo degradation.

3 Project Description

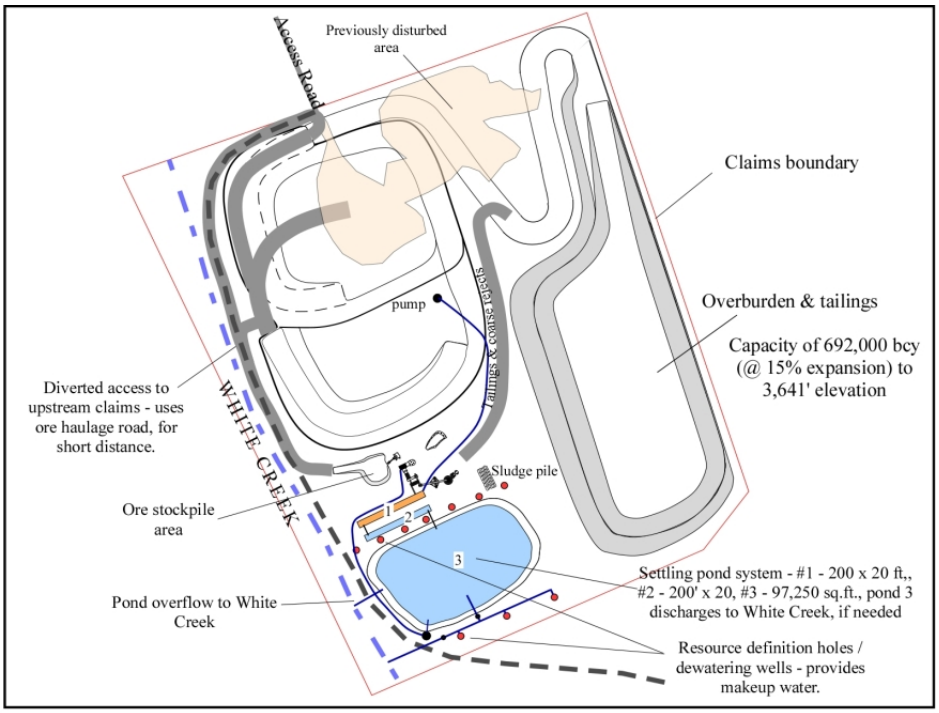
The pit will be mined in two phases. Overburden from Phase I will be moved to the side-hill pile and overburden from Phase II will be backfilled, to the extent possible, in Phase I pit. The pit will be approximately 1,240 feet x 530 feet at the surface (total of both phases) and roughly 55 feet deep.

Overburden and tailings will be stored above the pit and wash plant and has a capacity of 692,000 bank cubic yards (bcy) [versus loose cubic yards (lcy)] of material at a 15% expansion. Overburden is anticipated to be dominantly gravels and cobbles. If minable sit layers are encountered they will be segregated for use in reclamation.

As ore is encountered in the pit, it will be hauled to a stockpile located just upstream from the final pit rim.

Mining will be undertaken during the months of June to September and possibly a little into October as weather allows.

Figure 2: Rustlers Claims Placer Mining Area



Mining plan for Rustler #1 - #3 mining claims on upper White Creek. Scale: 1" = 500'. The claims are located in the SE & SW quarter of section 11 & the NE & NW quarter of section 14, T 20 S, R 2 E, Fairbanks Meridian. Wash/recovery plant located at site with appropriate materials and water management.

4 Hydrologic Description of White Creek

The White Creek drainage area is located within the western Clearwater Mountains where an extensive gold placer belt exists. This region is referred to as the Valdez Creek Mining District, and it is located about 150 miles northeast of Anchorage, about midway between the towns of Paxson and Cantwell, Alaska.

Valdez Creek has a drainage area of 37.5 mi^2 and is orientated in an east-west direction. Valdez Creek flows west into the greater Susitna River Watershed that drains south to Cook Inlet and the Gulf of Alaska.

White Creek is a sub-basin that is located on the south side of the larger Valdez Creek basin. It has a total drainage area of 9.3 mi^2, with its confluence located approximately 7.5 miles upstream from the mouth of Valdez Creek. In the vicinity of the Rustlers Claim Site, the upstream drainage area is 4.5 mi^2.

White Creek is in the order of 5 miles long and extends upstream in a south-east direction towards its mountainous drainage divide at just over 5,000 feet above sea level. The lower slopes are smooth and rolling, with only the higher bedrock-controlled summits having steep ascents.

White Creek features a 2^{nd} ordered stream network and has three stream tributaries (i.e., Rusty, Little Rusty and Big Rusty Creeks) that drain in a north, north-east direction from their headwater catchment areas. White Creek displays sinuous to irregular channel patterns. The stream has an average bankfull channel width and gradient of 10 feet and 0.7% respectively. The lower channel reaches have been subjected to channel realignments and diversions associated with historical placer mining activities.

The lower elevation areas of White Creek are mantled by a variety of surficial glaciation-related deposits. Permeable glaciofluvial deposits of sands and gravels are present along the floor of the basin as either alluvial fans or plains that extend out into Valdez Creek. The gold and heavy mineral placer deposits are overlain by these glaciofluvial deposits. The lower-to-mid elevation valley slopes are concave-shaped and feature deposits of overconsolidated glacial till that tend to have sandy clayey-silt textures (after Smith 1981; Tuck 1936)

Analysis of regional precipitation and U.S. Geophysical Service (USGS) flow discharge levels indicate that the mean annual precipitation levels vary from 32 to 45 inches per year, with mean annual runoff levels ranging in the order of 2 to 3 feet per year (Figures 3 and 4). The estimated storm rainfall intensity for a 24 hour storm event with a 1:25 year return period is 2.75 inches/hr. In the vicinity of the Rustlers Claim Site, the estimated peak flow associated with a 1:25 year return period is 288 ft^3/second, with the average 1:2 year minimum and 7 day low flow of 98 ft^3/second and 2.24 ft^3/second respectively.

The area of operations is entirely within the Rustlers claim block. A satellite image of the proposed mine area, taken in July 27, 2012 is shown in Figure 5. Site layout is shown in Figure 2 with additional wash plant and settling pond detail in Figure 6.

5 Water Use

5.1 Pit Dewatering

Mining will not occur in the existing stream channel. The pay gravel is expected to occur on bedrock that is buried beneath approximately 55 feet of glaciofluvial sediment. Pay zones may also exist in the sediment above bedrock. The glaciofluvial sediment principally consists of sand and gravels with lessor silt and clay zones. The sedimentary section is expected to be fully saturated and will require dewatering system. The sand and gravel are expected to have a high hydraulic conductivity. The dewatering system will consist of the following

- Six dewatering wells will be located upstream of the pit to reduce water inflows.
  - The design rate of this system will be 300 gpm (40.1 ft^3/min) per pump for a total of 1800 gpm (240.6 ft^3/min)
  - Clear groundwater will be produced, therefore it is anticipated that the water will meet discharge standards and will be discharged directly to White Creek
  - The discharge will be piped from the wells to White Creek. Water will be discharged in a manner that will prevent erosion and consequent sedimentation. Methods to control discharge may include in high energy portion with discharge pointed downstream, construction of a rock lined discharge basin, or other methods as appropriate.
- An in-pit pump specified with 6 inch intake and capable of handling 1,300 gpm (173.8 ft^3/minute). A combination of pumps may be used to achieve this rate. It is anticipated that the pit water will likely be sediment laden and therefore will be discharged to Settling Pond 1.
- An intercept pond or trench is not considered in this scenario; however, should the volume of water flowing into the pit become excessive, a system of this sort may be required; water will be pumped or allowed to flow directly to the settling pond system unless it meets discharge standards in which case it will flow or be pumped to White Creek

5.2 Settling Ponds

- A three settling pond system will be provided as part of the wash plant layout. The wash plant and settling ponds will be established upstream of the open pit area (Figure 6)
- Downstream Ponds 1 and 2 will be used for sedimentation and water clarification purposes. Each pond will be relatively long and narrow. They will have similar dimensions (20 feet wide by 200 feet long) and will have surface areas of 4,000 ft^2 each. This configuration will allow one pond to be in use while sediment is being removed from the other
- Settled solids in both Ponds 1 and 2 will be removed with the excavator as needed and stockpiled with a loader near the ponds for appropriate run-off management – draining fluids will be diverted to the settling pond system
- Upstream Pond 3 will function as the main water storage and sedimentation pond. The rectangular-shaped feature will have a 2:1 length-to-width ratio, with a surface area of 97,250 ft^2
- Design water depth for all ponds is 10 feet. Actual water depth may vary depending on circumstances
- Culverts will be used to convey water from one pond to the other 18 inch culverts are currently planned. Culverts will be buried a minimum depth equal to their diameter
- Discharge from Pond 3 to White Creek will be similar culvert design to between pond conveyances. Sufficient energy dissipation will be designed at the culvert discharge to prevent erosion and sedimentation. Rip-rap or other accepted engineer techniques will be used

- The design and construction of the ponds will meet, at a minimum, the specifications of the *Alaska Placer Mining Settling Pond Design Handbook*. That includes the containment berms and related control structures
- Water flow to the wash plant will be from Pond 3 at approximately 3,000 gpm (401 ft^3/minute)
- Overflow from the settling pond system will report to White Creek if it meets appropriate discharge standards. A Notice of Intent to discharge has been filed with the Alaska Department of Environmental Conservation (ADEC)
- The infiltration rate into underlying sediments is unknown, but is expected to change over time from settled sediment
- Initial and makeup water will be from the dewatering operation. In the event insufficient water is available from dewater (considered to be highly unlikely) to start the wash plant operation, then additional initial makeup water will be drawn from White Creek. No additional surface water will be diverted to the makeup water pond while an APDES discharge is occurring.

5.2.1 Pond Dike Failure Prevention and Response Plan

- Ponds water level will be controlled by the culvert outlet, nominally 3 feet freeboard
- Dikes will be inspected at daily when in operation for adequate freeboard and for potentially weak areas. Flow conditions at culverts will be observed
- Weak areas will be reinforced with overburden using an excavator, loader, or dozer as appropriate
- In the event that storm events or other conditions result in flow levels exceeding the culvert discharge capacity, the water inflow to pond system will be reduced by shutting down the pit dewatering system

5.3 Processing

- Wash plant operation and tailings handling will be located upstream, beyond the maximum pit limit (Figure 6). It is anticipated that the wash plant will be operated for about ½ of the operating season, depending on ore volumes encountered in the mining operation
- The wash plant consists of a Derocker, 5 or 6 channel sluice system, and a tailing dewater system
- Water flow rate will be approximately 3,000 gpm (401 ft^3/min) to the wash plant from Pond 3
- A dewatering screen followed by dewatering screws, will remove plus silt-sized material from water; overflow will report to Pond 1 or 2
- Initial and makeup water will be from the dewatering operation

5.4 Water Discharge

Water discharge will be permitted under the Alaska Pollutant Discharge Elimination System (APDES). A Notice of Intent (NOI) has been filed with the ADEC for discharge under Alaska Pollution Discharge Elimination System for Mechanical Placer Miners (GP No. AKF370000). See Attachment 1.

5.4.1 Process Water and Dewatering

- Water discharge will be from the dewatering wells and the settling pond system
- Water will be discharged to White Creek if it meets discharge standards
- Use of a mixing zone is not being requested

- Water discharge from the dewatering wells is expected to be continuous during mining at anticipated maximum rate of 1,800 gpm (240.6 ft^3/min)
- Discharge timing and rate from the settling pond system is unknown – anticipated maximum rate of 2,000 gpm (267.4 ft^3/min) (pit dewater plus potential stormwater inflow) – continuous

5.4.2 Stormwater Management

- Stormwater flowing from the overburden pile will be captured in the settling pond system. A system of ditches with flow to the ponds, although not shown in Figure 6, will be required to assure that stormwater is contained and treated for settleable solids.
- Appropriate BMPs will incorporated in road ditches to control runoff, these may include; course bed materials, check dams, sediment basins, and other measures as needed.
- Any stormwater management via open channel diversions should be capable of safely conveying water runoff from a 24 hour rainfall event with a 1: 25 year return period. That is, a storm with related rainfall intensity of 2.75 inches/hr.
- Any open conveyance channels and containment ponds that may be required to temporarily store any stormwater runoff from the site will require as a minimum to satisfy the best management practices and techniques that are specified by the *Alaska Storm Water Guidebook.*

6 Volume of Water Extracted for Mining Use

Water from interceptor dewatering wells and in-pit sump pumps will control water inflow into the active areas of the pits being mined. Water from dewatering wells and pond system will be used for process make up water:

- Approximate volume **dewatering system** – wells 1,800 gpm (240.6 ft^3/min), pit 1,300 gpm (173.8 ft^3/min)[1]
- Anticipated **makeup water** volume – makeup water will be from dewatering system, if pit dewatering does not provide adequate volume, a portion of the dewatering well volume will be diverted to the pond system. It is considered highly unlikely that additional makeup water will be needed beyond the capacity of the dewatering system.
- Approximate volume of **processing water** is approximately 3,000 gpm (401 ft^3/min)

Approximate water volume of **settling pond system**

Pond	Length (ft)	Width (ft)	Area (ft^2)	Depth (ft)	Vol (ft^3)	Vol (gal)	Vol (gal)
1	200	20		10	40,000	299,200	299,000
2	200	20		10	40,000	299,200	299,000
3			92,838	10	928,380	6,944,282	6,944,000
Total Pond Volume						**7,542,682**	**7,542,000**

7 Stream/Creek/River Bypass Design

The proposed placer mine will be located east of and adjacent to White Creek. Diversion of White Creek will not be required. No side streams enter White Creek from the east in the proposed mine area.

[1] all pumps/wells will have instantaneous flow and totalizers meters

8 Site Wide Monitoring and Reporting

The VCM will institute a comprehensive inspection and sampling program to facilitate compliance with BLM and ADEC permits that encompasses water quality/quantity, meteorological events, wildlife sightings and mortalities (including fish and birds), air quality (fugitive dust), fuel/oil storage and use, and monitoring of reclaimed areas.

Water Quality and Quantity Monitoring

Under the ADEC Alaska Pollution Discharge Elimination System for Mechanical Placer Miners (GP No. AKF370000) there are additional limitations, a more comprehensive list of monitoring requirements, and reporting that will be incorporated into this Plan by reference (Attachment 1).

The basic criterion for monitoring is based on this operation qualifying as a Discharging Facility. VCM will collect effluent samples from the effluent stream after the last treatment pond before discharging into White Creek. Samples and measurements will be representative of the volume and nature of the monitored activity or discharge. Specifically, effluent samples for settleable solids, turbidity, and arsenic will be collected as grab samples (bucket or sample bottles) from the settling pond outlet or other treatment systems outlet *prior to discharge to White Creek.* Upstream samples, as required shall be taken at a point that is representative of the receiving stream just above the mining operation. Daily flow measurements (gpm) will be instantaneous readings at yet to be determined point upstream of the mining operation and at the outlet of the settling pond or treatment system. Discharge pipes from interceptor wells and sump pumps will have instantaneous flow and totalizers meters installed to record all groundwater volumes pumped.

Visual Inspection and Monitoring Program

VCM will conduct a visual inspection of the site once per day, while on site, during the mining season.

The inspection must include the following:

- An evaluation of the condition of all water control devices such as diversion structures and berms and all solids retention structures including, but not limited to, berms, dikes, pond structures, and dams;
- An assessment of the presence of sediment buildup within the settling ponds;
- An examination of all ponds for the occurrence of short circuiting;
- Visually monitoring for turbidity at the edge of the mixing zone or at the point of discharge if no mixing zone is approved, at least once each day a discharge occurs;
- Visual monitoring of streambank erosion or scour downgradient from the discharge point;
- Visual assessment of secondary containment berms/structures for all fuel and petroleum lubricants;
- Observation of wildlife in the mine site area and log of any mortalities (including fish and birds);
- Meteorological conditions (i.e., rain showers, dry periods, strong winds, etc.);
- Fugitive dust and note if haul roads were watered to control emissions; and

- The VCM will maintain records of all information resulting from any inspections or visual monitoring.

Reporting of Monitoring Results

VCM will summarize monitoring results on the annual report form or approved equivalent and submit its annual report at the interval specified in the permit. VCM will sign and certify all annual reports and other reports in accordance with the requirements of the permit.

Additional Monitoring

If VCM monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring will be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report or annual report.

Twenty-four Hour Reporting

VCM will report any noncompliance event that may endanger health or the environment orally within 24 hours after the permittee becomes aware of the circumstances and a written report within five days after the VCM becomes aware of the circumstances.

Spill Reporting

All spills of oil or hazardous substances shall be reported to ADEC at 800-478-9300 and to the BLM Authorized Officer at:

Bureau of Land Management
Glennallen Field Office
Contact number: 1-907-822-3217
Point of Contact: Authorized Officer·

Spill reporting requirements are:

- Spills of any amount of oil or hazardous substances to water outside secondary containment, or greater than *55* gallons inside secondary containment must be reported as soon as possible after becoming aware of the spill
- Spills of more than *55* gallons to land must also be reported as soon as possible after becoming aware of the spill
- Spills to land of more than 10 gallons but less than *55* gallons must be reported within 48 hours of becoming aware of the spill
- For spills of less than 10 gallons, VCM will submit a written report to ADEC summarizing those spills during that month[2].

[2] All spills will be cleaned up immediately taking precedence over all other matters except the health and safety of personnel.

9 References

Alaska Department of Environmental Conservation (ADEC). 2011. Alaska Storm Water Guide. 239 pages.

Alaska Department of Environmental Conservation (ADEC). 2012. Alaska Pollutant Discharge Elimination System – Permit Fact Sheet AKG370000. Water Discharge Authorization Program. 26 pgs + Appendices. January 2012

Alaska Department of Environmental Conservation (ADEC). 2011. Mechanical Placer Mining General Permit Guidance. Water Discharge Program. 5 pgs. June 2011

Smith, T.E. 1981. Geology of Clearwater Mountains, South-Central Alaska. USGS Geologic Report 60. 80 pages + maps

Tuck, R. 1936. Valdez Creek Mining District, Alaska 1936. US Dept. Of Interior – Geological Survey, Bulletin 897-B. 26 pages.

U.S. Bureau of Land Management. 2012. Surface Management Handbook. Depart of the Interior. BLM Handbook H-3809-1. 361 pages.

U.S. Bureau of Land Management. 2011. Description of Operations Elements. Depart of the Interior. 3809.420. 4 pages.

U.S. Bureau of Land Management. 2011. Annual Placer Mining Application (APMA) BLM Supplement B – Water Management Plan for Operations on Bureau of Land Management Lands in Alaska.

Attachment 1: APDES Permit No. AKG37000

AUTHORIZATION TO DISCHARGE UNDER THE ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR MECHANICAL PLACER MINERS

GENERAL PERMIT NUMBER AKG370000

Authorization Number: [#]

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. §1251 *et seq*., as amended by the Water Quality Act of 1987, P.L. 100-4, this permit is issued under provisions of Alaska Statutes (AS) 46.03; the Alaska Administrative Code (AAC) as amended; and other applicable State laws and regulations.

Owners and operators of mechanical placer mines, except those sites excluded from coverage in Part 1.0 of this Alaska Pollutant Discharge Elimination System (APDES) permit, are authorized to discharge to waters of the United States, only in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein.

A COPY OF THIS GENERAL PERMIT MUST BE KEPT AT THE SITE WHERE DISCHARGES OCCUR.

[PERMITTEE NAME]

[RECEIVING WATER]

This permit is effective **April 6, 2012**.

This permit and the authorization to discharge shall expire at midnight on **October 31, 2014**.

The permittee shall reapply for a permit reissuance on or before **August 2, 2014,** 90 days before the expiration of this permit, if the permittee intends to continue operations and discharge(s) at the facility beyond the term of this permit.

Signed

Wade Strickland
Signature

March 7, 2012
Date

Wade Strickland
Printed Name

Program Manager
Title

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SCHEDULE OF SUBMISSIONS

The Schedule of Submissions summarizes some of the required submissions and activities the permittee must complete and/or submit to the Alaska Department of Environmental Conservation during the term of this permit. The permittee is responsible for all submissions and activities even if they are not summarized below.

Table 1: Schedule of Submissions

Permit Part	Submittal or Completion	Frequency	Due Date
4.1	Daily Records	Daily	Completed and maintained on site
4.2	Annual Report	1/year	On or before January 31
1.6	Notice of Intent (NOI) to discharge from a new or recommencing facility	1/permit cycle	60 days prior to discharge
	NOI to discharge from an existing facility that seeks coverage under an administratively extended general permit	1/permit cycle	90 days before expiration of the general permit
Appendix A, 3.4	Oral notification of noncompliance	As Necessary	Within 24 hours from the time the permittee becomes aware of the circumstances of noncompliance
	Written documentation of noncompliance	As Necessary	Within 5 days after the permittee becomes aware of the circumstances

1.0 PERMIT COVERAGE

1.1 Coverage and Eligibility

1.1.1 Existing Facilities: Facilities with coverage under the 2005 Mechanical Placer Miners General Permit are eligible for coverage under this general permit (hereinafter referred to as permit or GP). See Permit Part 1.6 for notification requirements.

1.1.2 New Facilities / Recommencing Facilities: Upon submittal of a Notice of Intent (NOI) to discharge, all mechanical placer facilities that meet the criteria for coverage under this permit will be granted coverage.

1.1.3 Moving Facilities / Expanding Facilities: Facilities that contemplate moving their outfalls or expanding shall submit a new NOI that describes the new discharge. The current authorization may be terminated and a new authorization, reflecting the changes, issued in its place if the facility meets all the necessary criteria for coverage under this permit.

1.1.4 Authorization to discharge requires written notification from the Alaska Department of Environmental Conservation (hereinafter referred to as Department or DEC) that coverage has been granted and that a specific authorization number has been assigned to the operation.

1.2 Authorized Placer Mining Operations

1.2.1 The following operations are authorized under this permit:

1.2.1.1 Facilities that mine and process gold placer ores using gravity separation methods to recover the gold metal contained in the ore.

1.2.1.2 Open-cut gold placer mines except those open-cut mines that mine less than 1,500 cubic yards of placer ore per mining season.

1.2.1.3 Mechanical dredge gold placer mines except those dredges that remove less than 50,000 cubic yards of placer ore per mining season or dredge in open waters.

1.2.1.4 Hydraulicking facilities that are considered “non-discharging” facilities.

1.3 Prohibitions

1.3.1 The following operations are not authorized under this permit:

1.3.1.1 Discharges from beneficiation processes that utilize mercury amalgamation, cyanidation, froth floatation, heap leaching, or vat leaching;

1.3.1.2 Hydraulicking facilities that discharge on an intermittent or continuous basis;

1.3.1.3 Facilities that are proposed to be located in National Park System Units (i.e., Parks and Preserves), National Monuments, National Sanctuaries, National Wildlife Refuges, National Conservation Areas, National Wilderness Areas, National Critical Habitat Areas, Tier 3 waters, waters designated as wild under the Wild and Scenic Rivers Act, or wetlands designated in the 1995 *Anchorage Wetlands Management Plan*; or

1.3.1.4 Facilities that discharge to marine waters.

1.4 Additional Requirements

1.4.1 Many streams and stream reaches in Alaska have been designated as part of the National Wild and Scenic Rivers System (www.rivers.gov/wildriverslist.html) or as Conservation System Units (dnr.alaska.gov/commis/opmp/anilca/more.htm) by the federal government. Applicants should contact the district offices of the federal agencies that administer the designated area for additional restrictions that may apply to operating within the area.

1.4.2 Many streams in Alaska where placer mining occurs have been designated by the Alaska Department Fish and Game (ADF&G) as anadromous fish streams. Placer mining activities in these streams require an ADF&G Fish Habitat Permit that may include additional restrictions. The "Atlas to the Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fish" (www.sf.adfg.state.ak.us/SARR/awc/) lists the streams in the state that require prior ADF&G authorization. In addition, placer mining activities in resident fish streams require an ADF&G Fish Habitat Permit if the proposed activity has the potential to block or impede the efficient passage of fish. Applicants who wish to operate in anadromous or resident fish streams, or propose to divert surface waters, should contact ADF&G to determine permitting requirements and additional restrictions that may apply.

1.5 Requiring an Individual Permit

1.5.1 In accordance with 18 AAC 83.215, the Department may require or allow any permittee authorized under this GP to apply for and obtain an individual APDES permit or allow an owner or operator of a facility with an individual permit to obtain coverage under this GP.

1.5.2 The Department will notify the operator in writing by certified mail that an individual APDES permit application is required. If the operator fails to submit an application by the date required in the notification, coverage under this GP is automatically terminated at the end of the day specified for application submittal.

1.6 Notification Requirements

1.6.1 Owners or operators of existing facilities eligible for coverage under the administratively extended 2005 GP are automatically covered under this GP. Automatic authorizations include any turbidity modifications authorized under the 2005 GP.

1.6.2 Owners or operators of facilities that are ineligible for automatic coverage (see Part 1.6.1) shall submit an NOI. The information required for a complete NOI is in Appendix E of this permit. Notification must be made 60 days prior to discharge from a new or recommencing facility.

1.6.3 An Annual Placer Mining Application (APMA) will be accepted as an NOI if all the required information is included, and the APMA is signed as required in Part 1.6.4.

1.6.4 The NOI shall be signed by the owner, operator, or other signatory authority in accordance with Appendix A, Part 1.12 (Signature Requirement and Penalties), and a copy shall be retained on site in accordance with Appendix A, Part 1.11 (Monitoring and Records).

1.6.5 To apply for permit coverage, applicants must submit an NOI to the DEC at the address in Appendix A, Part 1.1, or submit an APMA to the Alaska Department of Natural Resources (DNR).

1.6.6 Applicants who do not use the APMA procedure for filing their NOI with DNR shall send a copy of the NOI to the Federal, State, or local agency that manages or owns the land in which the mine is located or proposed to be located.

1.6.7 Owners or operators of authorized facilities wishing to continue coverage after the expiration date of this GP must submit a new NOI at least 90 days prior to expiration of this GP, as described in Appendix A, Part 1.3, in order for the conditions of the expired permit to continue in force until the effective date of a new permit.

1.6.8 A copy of the GP will be sent to the owner or operator when it is determined that the facility can be authorized under this GP. If it is determined that a facility cannot be authorized to discharge under this permit, the owner or operator will be informed of this in writing.

2.0 LIMITATIONS AND MONITORING REQUIREMENTS

2.1 Non-Discharging Facilities

2.1.1 Beginning with the effective date of this permit, the permittee shall not discharge wastewater to receiving waters unless the permittee qualifies for a storm exemption as outlined below.

2.1.2 A non-discharging facility may qualify for a storm exemption from the technology-based effluent limit for settleable solids and the flow requirements in Parts 2.2.1.1 and 2.2.1.2, if the following requirements are met:

2.1.2.1 The treatment system is designed, constructed, and maintained to contain

2.1.2.1.1 the maximum volume of untreated process wastewater which would be discharged, stored, contained, and used or recycled by the beneficiation process into the treatment system during a 4-hour operating period without an increase in volume from precipitation or infiltration, and

2.1.2.1.2 the maximum volume of water (drainage waters) which would result from a 5-year, 6-hour precipitation event, including the volume which would result from the plant site contributing runoff to the individual treatment facility;

2.1.2.2 The permittee takes all reasonable steps to maintain treatment of the wastewater and to minimize the overflow or excess discharge;

2.1.2.3 The permittee is in compliance with the best management practices in Parts 3.2.1 - 3.2.5 and the notification requirements of Appendix A, Parts 3.4 and 3.5.

2.1.3 Discharges that result from a precipitation event and qualify for a storm exemption (Part 2.1.2) must be monitored as listed in Table 2.

Table 2: Precipitation Event Monitoring Requirements

Effluent Characteristic	Units	Monitoring Location [a]	Monitoring Frequency [a]	Sample Type
Settleable Solids	ml/L	Effluent	Daily	Grab
Turbidity	NTU	Effluent	Once per discharge event [b, c]	Grab
		Upstream	Once per discharge event [c]	Grab
Arsenic	ug/L	Effluent	Once per discharge event [b, c]	Grab
		Upstream	Once per discharge event [c, d]	Grab
Flow	gpm	Effluent	Daily	Instantaneous
Seepage	gpm	-	Daily	Estimate [e]

Notes:

a. See Part 2.3 (Other Monitoring Requirements) for details.
b. Effluent samples for turbidity and arsenic monitoring must be taken concurrently.
c. Effluent and upstream samples shall be taken within a reasonable time frame of each other.
d. The upstream arsenic sample is optional and may be collected and submitted on a voluntary basis.
e. A good faith effort must be made to estimate seepage discharging to waters of the U.S. each day that seepage occurs.

2.1.4 If a discharge occurs during dry weather, the facility will be considered a discharging facility covered by the requirements in Part 2.2.

2.2 Discharging Facilities

2.2.1 Beginning with the effective date of this permit, the permittee shall not discharge wastewater to receiving waters except in compliance with the following effluent limitations:

2.2.1.1 Effluent discharges are prohibited during periods when new water is allowed to enter the plant site. Additionally, there shall be no discharge as a result of the intake of new water.

2.2.1.2 The volume of wastewater which may be discharged shall not exceed the volume of infiltration, drainage and mine drainage waters which are in excess of the make-up water required for operation of the beneficiation process.

2.2.1.3 Discharges that do not qualify for a storm exemption (Part 2.1.2) must meet the limits and monitoring requirements as listed in Table 3.

Table 3: Effluent Limits and Monitoring Requirements

Effluent Characteristic	Instantaneous Maximum	Units	Monitoring Location [a]	Monitoring Frequency [a]	Sample Type
Settleable Solids	0.2	ml/L	Effluent	Daily	Grab
Turbidity	5 NTUs above natural conditions	NTU	Effluent	Three times per week [b, c]	Grab
			Upstream	Three times per week [c]	Grab
Arsenic	10	µg/L	Effluent	Once per season [b, c]	Grab
		µg/L	Upstream	Once per season [c, d]	Grab
Flow	-	gpm	Effluent	Daily	Instantaneous
Seepage	-	gpm	-	Daily	Estimate [e]

Notes:

a. See Part 2.3 (Other Monitoring Requirements) for details.
b. Effluent samples for turbidity and arsenic monitoring must be taken concurrently and during sluicing at a time when the operation has reached equilibrium. For example, samples should be taken when sluice paydirt loading and effluent discharge are constant.
c. Effluent and upstream samples shall be taken within a reasonable time frame of each other. Permittess who receive a site-specific turbidity limit (Part 2.2.2) may not be required to take upstream turbidity samples.
d. The upstream arsenic sample is optional and may be collected and submitted on a voluntary basis.
e. A good faith effort must be made to estimate seepage discharging to waters of the U.S. each day that seepage occurs.

2.2.2 Turbidity and Arsenic Modifications

2.2.2.1 Permittees may request a modified turbidity limit based upon an authorized mixing zone. DEC will authorize a modified turbidity limit and mixing zone provided that:

2.2.2.1.1 The modified turbidity limit does not exceed 1500 NTUs;

2.2.2.1.2 The modified turbidity limit does not cause turbidity levels to exceed 100 NTUs in more than one-half of the cross-sectional area of resident and anadromous fish migration corridors;

2.2.2.1.3 The modified turbidity limit is calculated using the 7-day, 10-year low flow (7Q10) as the chronic criterion design flow for the protection of aquatic life;

2.2.2.1.4 The modified turbidity limit does not result in a mixing zone in an area of anadromous fish spawning, resident fish spawning redds, and when eggs or alevins are present;

2.2.2.1.5 Approved mixing zones do not overlap, and the availability and extent of approved mixing zones is limited as necessary to avoid potentially harmful cumulative effects on the receiving environment;

2.2.2.1.6 The public was provided reasonable notice of, and an opportunity to comment on, the modified turbidity limit and associated mixing zone, including site-specific assessments used to calculate the limit and mixing zone size, prior to their authorization by DEC; and

2.2.2.1.7 The modified limit and resulting mixing zone are consistent with the Clean Water Act and 18 AAC 70.240 (June 26, 2003).

2.2.2.2 A permittee who discharges to a waterbody reclassified in the Alaska Water Quality Standards (WQS) at 18 AAC 70.230(e) may be granted a modified turbidity limit or arsenic limit based on the most stringent criteria applicable to the reclassified waterbody.

2.2.2.3 If DEC authorizes a mixing zone and turbidity modification to a waterbody reclassified in the WQS, the turbidity modification will be included in a facility's authorization if it meets the conditions of Parts 2.2.2.1.2 - 2.2.2.1.6.

2.2.2.4 Pending a decision on the modified turbidity limit or arsenic limit, the limits in Part 2.2.1.3 apply.

2.2.3 Flow Limits

2.2.3.1 The volume of discharge for a facility with an authorized mixing zone shall not exceed the volume reported by the permittee on the NOI. If the permittee exceeds that volume, DEC will not consider the permittee in violation of the flow limit if the following requirements are met:

2.2.3.1.1 The permittee submits to DEC seepage estimates for the discharge and turbidity sample results and flow measurements for the effluent and upstream receiving water taken during the period of the flow exceedence;

2.2.3.1.2 The submitted sample results show that the permittee's discharge did not cause the standard of 5 NTU above background to be exceeded at the edge of the mixing zone; and

2.2.3.1.3 The permittee reports all exceedences of the flow limit, together with any monitoring data that the permittee intends to use to avoid being considered in violation of the flow limit, pursuant to the reporting requirements in Appendix A, Part 3.4.

2.3 Other Monitoring Requirements

2.3.1 All samples for monitoring purposes must be representative of the monitored activity, as outlined in Appendix A, Part 3.1. Specifically, effluent samples for settleable solids, turbidity, and arsenic shall be collected from the settling pond outlet or other treatment systems outlet *prior to discharge to the receiving stream.* Upstream samples, as required in Tables 2 and 3, shall be taken at a point that is representative of the receiving stream just above the permittee's mining operation.

2.3.2 Analyses of pollutants must be conducted as required in Attachments 1 - 3 (Sampling Protocol) and Appendix A, Part 1.11.4 (Monitoring Procedures).

3.0 SPECIAL CONDITIONS

3.1 Inspection Program

3.1.1 The permittee shall institute a comprehensive inspection program to facilitate proper operation and maintenance of the recycle system and the wastewater treatment system. The permittee shall conduct a visual inspection of the site once per day, while on site, during the mining season.

3.1.2 The inspection must include the following:

3.1.2.1 An evaluation of the condition of all water control devices such as diversion structures and berms and all solids retention structures including, but not limited to, berms, dikes, pond structures, and dams;

3.1.2.2 An assessment of the presence of sediment buildup within the settling ponds;

3.1.2.3 An examination of all ponds for the occurrence of short circuiting; and

3.1.2.4 Visually monitoring for turbidity at the edge of the mixing zone or at the point of discharge if no mixing zone is approved, at least once each day a discharge occurs.

3.1.3 The permittee shall maintain records of all information resulting from any inspections in accordance with Appendix A, Part 1.11.

3.2 Best Management Practices (BMP) Plan

3.2.1 The flow of surface waters into the plant site shall be interrupted and these waters diverted around and away from incursion into the plant site.

3.2.2 Berms, including any pond walls, dikes, low dams, and similar water retention structures shall be constructed in a manner such that they are reasonably expected to reject the passage of water.

3.2.3 Measures shall be taken to assure that pollutant materials removed from the process water and wastewater streams will be retained in storage areas and not discharged or released to the waters of the U.S.

3.2.4 The amount of new water allowed to enter the plant site for use in material processing shall be limited to the minimum amount required as makeup water for processing operations.

3.2.5 All water control devices such as diversion structures and berms and all solids retention structures such as berms, dikes, pond structures, and dams shall be reasonably maintained to continue their effectiveness and to protect from failure.

3.2.6 The permittee shall take whatever reasonable steps are appropriate to assure that, after the mining season, all unreclaimed mine areas, including ponds, are in a condition that will not cause degradation to the receiving waters over those resulting from natural causes.

3.2.7 During each mining season, a permittee may not discharge into the receiving water within 300 feet of any other upstream or downstream placer mining operation which is discharging, or from which it is visually apparent by the permittee that a discharge has occurred. Nor may a permittee discharge at a point within 300 feet of the downstream edge of a mixing zone granted for any other upstream placer mining operation.

3.2.8 Care shall be taken by the permitttee during refueling of equipment to prevent spillage into surface waters or to groundwater. Any spills shall be cleaned up using materials such as sorbent pads and booms. All spills shall be reported to DEC by calling 1-800-478-9300.

For facilities with a fuel storage capacity greater than 1,320 gallons in total above ground, or greater than 42,000 gallons in total below ground, EPA requires that a Spill Prevention Control and Countermeasure Plan (SPCC Plan) be prepared and updated as necessary in accordance with provisions of 40 CFR Part 112.

4.0 RECORDING AND REPORTING REQUIREMENTS

4.1 Daily Records

4.1.1 The permittee must maintain daily records of all information resulting from any inspections as required in Part 3.1.

4.2 Annual Report Requirements

4.2.1 An Annual Report must be submitted no later than January 31 for the previous calendar year.

4.2.2 The Annual Report must include the following:

4.2.2.1 Permittee name;

4.2.2.2 APDES authorization number;

4.2.2.3 Receiving water name;

4.2.2.4 Monitoring results for settleable solids, turbidity, and arsenic as required under Parts 2.1.3 and 2.2.1.3;

4.2.2.5 Flow measurements and seepage estimates, the number of discharge events, and the duration of each discharge event for each day of the mining season;

4.2.2.6 The results of any additional monitoring by the permittee, as outlined in Appendix A, Part 3.3; and

4.2.2.7 Noncompliance reports required under Appendix A, Part 3.5.

4.2.3 The permittee shall sign and certify all annual reports and other reports in accordance with the requirements of Appendix A, Part 1.12 (Signature Requirement and Penalties). All signed and legible originals of these documents must be submitted to the DEC Compliance and Enforcement Program at the address in Appendix A, Part 1.1.

4.2.4 If there is no mining activity during the year or no wastewater discharge to a receiving stream, the permittee shall notify DEC of these facts no later than January 31 for the previous calendar year.

4.3 Standard Conditions

4.3.1 The permittee must also comply with the following recording and reporting requirements, as described in Appendix A, Standard Conditions:

4.3.1.1 Retention of Records, Part 1.11.2;

4.3.1.2 Records Contents, Part 1.11.3;

4.3.1.3 Special Reporting Obligations, Part 2.0; and

4.3.1.4 Monitoring, Recording, and Reporting Requirements, Part 3.0.

APPENDIX A

STANDARD CONDITIONS

APDES PERMIT

PLACER MINE DISCHARGES

August 2010

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Appendix A of the permit contains standard regulatory language that must be included in all APDES permits. These requirements are based on the regulations and cannot be challenged in the context of an individual APDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements. Appendix A, Standard Conditions is an integral and enforceable part of the permit. Failure to comply with a Standard Condition in this Appendix constitutes a violation of the permit and is subject to enforcement.

1.0 Standard Conditions Applicable to All Permits

1.1 Contact Information and Addresses

1.1.1 Permitting Program

Permit related documents and plans required under the permit and Appendix A are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Wastewater Discharge Authorization Program
610 University Avenue
Fairbanks, Alaska 99709-3643
Telephone (907) 451-2142
Fax (907) 451-2187
Email: dec.water.wqpermit@alaska.gov
Website: dec.alaska.gov/water/wwdp

1.1.2 Compliance and Enforcement Program

Compliance related documents, including Annual Reports, required under the permit and Appendix A are to be sent to the following address:

State of Alaska
Department of Environmental Conservation
Division of Water
Compliance and Enforcement Program
555 Cordova Street
Anchorage, Alaska 99501
Telephone Nationwide (877) 569-4114
Anchorage Area / International (907) 269-4114
Fax (907) 269-4604
Email: dec-wqreporting@alaska.gov

1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

1.3 Duty to Reapply

If a permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. In accordance with 18 AAC 83.105(b), a permittee with a currently effective permit shall reapply by submitting a new application at least 90 days before the existing permit expires, unless the Department has granted the permittee permission to submit an application on a later date. However, the Department will not grant permission for an application to be submitted after the expiration date of the existing permit.

1.4 Need to Halt or Reduce Activity Not a Defense

In an enforcement action, a permittee may not assert as a defense that compliance with the conditions of the permit would have made it necessary for the permittee to halt or reduce the permitted activity.

1.5 Duty to Mitigate

A permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

1.6 Proper Operation and Maintenance

1.6.1 A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances that the permittee installs or uses to achieve compliance with the conditions of the permit. The permittee's duty to operate and maintain properly includes using adequate laboratory controls and appropriate quality assurance procedures. However, a permittee is not required to operate back-up or auxiliary facilities or similar systems that a permittee installs unless operation of those facilities is necessary to achieve compliance with the conditions of the permit.

1.6.2 Operation and maintenance records shall be retained and made available at the site.

1.7 Permit Actions

A permit may be modified, revoked and reissued, or terminated for cause as provided in 18 AAC 83.130. If a permittee files a request to modify, revoke and reissue, or terminate a permit, or gives notice of planned changes or anticipated noncompliance, the filing or notice does not stay any permit condition.

1.8 Property Rights

A permit does not convey any property rights or exclusive privilege.

1.9 Duty to Provide Information

A permittee shall, within a reasonable time, provide to the Department any information that the Department requests to determine whether a permittee is in compliance with the permit, or whether cause exists to modify, revoke and reissue, or terminate the permit. A permittee shall also provide to the Department, upon request, copies of any records the permittee is required to keep under the permit.

1.10 Inspection and Entry

A permittee shall allow the Department, or an authorized representative, including a contractor acting as a representative of the Department, at reasonable times and on presentation of credentials establishing authority and any other documents required by law, to:

1.10.1 Enter the premises where a permittee's regulated facility or activity is located or conducted, or where permit conditions require records to be kept;

1.10.2 Have access to and copy any records that permit conditions require the permittee to keep;

1.10.3 Inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and

1.10.4 Sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

1.11 Monitoring and Records

A permittee must comply with the following monitoring and recordkeeping conditions:

1.11.1 Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

1.11.2 The permittee shall retain records in Alaska of all monitoring information for at least five years, or longer at the Department's request at any time, from the date of the sample, measurement, report, or application. Monitoring records required to be kept include:

1.11.2.1 All calibration and maintenance records,

1.11.2.2 All original strip chart recordings or other forms of data approved by the Department for continuous monitoring instrumentation,

1.11.2.3 All reports required by a permit,

1.11.2.4 Records of all data used to complete the application for a permit,

1.11.2.5 Field logbooks or visual monitoring logbooks,

1.11.2.6 Quality assurance chain of custody forms,

1.11.2.7 Copies of discharge monitoring reports, and

1.11.2.8 A copy of this APDES permit.

1.11.3 Records of monitoring information must include:

1.11.3.1 The date, exact place, and time of any sampling or measurement;

1.11.3.2 The name(s) of any individual(s) who performed the sampling or measurement(s);

1.11.3.3 The date(s) and time any analysis was performed;

1.11.3.4 The name(s) of any individual(s) who performed any analysis;

1.11.3.5 Any analytical technique or method used; and

1.11.3.6 The results of the analysis.

1.11.4 Monitoring Procedures

Analyses of pollutants must be conducted using test procedures approved under 40 CFR Part 136, adopted by reference at 18 AAC 83.010, for pollutants with approved test procedures, and using test procedures specified in the permit for pollutants without approved methods.

1.12 Signature Requirement and Penalties

Any application, report, or information submitted to the Department in compliance with a permit requirement must be signed and certified in accordance with 18 AAC 83.385. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under a permit, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be subject to penalties under 33 U.S.C. 1319(c)(4), AS 12.55.035(c)(1)(B), (c)(2) and (c)(3), and AS 46.03.790(g).

1.13 Proprietary or Confidential Information

1.13.1 A permit applicant or permittee may assert a claim of confidentiality for proprietary or confidential business information by stamping the words "confidential business information" on each page of a submission containing proprietary or confidential business information. The Department will treat the stamped submissions as confidential if the information satisfies the test in 40 CFR §2.208, adopted by reference at 18 AAC 83.010, and is not otherwise required to be made public by state law.

1.13.2 A claim of confidentiality under Appendix A, Part 1.13.1 may not be asserted for the name and address of any permit applicant or permittee, a permit application, a permit, effluent data, sewage sludge data, and information required by APDES or NPDES application forms provided by the Department, whether submitted on the forms themselves or in any attachments used to supply information required by the forms.

1.13.3 A permittee's claim of confidentiality authorized under Appendix A, Part 1.13.1 is not waived if the Department provides the proprietary or confidential business information to the EPA or to other agencies participating in the permitting process. The Department will supply any information obtained or used in the administration of the state APDES program to the EPA upon request under 40 CFR §123.41, as revised as of July 1, 2005. When providing information submitted to the Department with a claim of confidentiality to the EPA, the Department will notify the EPA of the confidentiality claim. If the Department provides the EPA information that is not claimed to be confidential, the EPA may make the information available to the public without further notice.

1.14 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any action or relieve a permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under state laws addressing oil and hazardous substances.

1.15 Cultural and Paleontological Resources

If cultural or paleontological resources are discovered because of this disposal activity, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://www.dnr.state.ak.us/parks/oha/), is to be notified immediately at (907) 269-8721.

1.16 Fee

A permittee must pay the appropriate permit fee described in 18 AAC 72.

1.17 Other Legal Obligations

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the

Department or from other local, state, or federal agencies and to comply with the requirements contained in any such permits. All activities conducted and all plan approvals implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

2.0 Special Reporting Obligations

2.1 Planned Changes

2.1.1 The permittee shall give notice to the Department as soon as possible of any planned physical alteration or addition to the permitted facility if:

2.1.1.1 The alteration or addition may make the facility a "new source" under one or more of the criteria in 18 AAC 83.990(44); or

2.1.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged if those pollutants are not subject to effluent limitations in the permit or to notification requirements under 18 AAC 83.610.

2.1.2 If the proposed changes are subject to plan review, then the plans must be submitted at least 30 days before implementation of changes (see 18 AAC 15.020 and 18 AAC 72 for plan review requirements). Written approval is not required for an emergency repair or routine maintenance.

2.1.3 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.2 Anticipated Noncompliance

2.2.1 A permittee shall give seven days' notice to the Department before commencing any planned change in the permitted facility or activity that may result in noncompliance with permit requirements.

2.2.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.3 Transfers

2.3.1 A permittee may not transfer a permit for a facility or activity to any person except after notice to the Department in accordance with 18 AAC 83.150. The Department may modify or revoke and reissue the permit to change the name of the permittee and incorporate such other requirements under 33 U.S.C. 1251-1387 (Clean Water Act) or state law.

2.3.2 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.4 Compliance Schedules

2.4.1 A permittee must submit progress or compliance reports on interim and final requirements in any compliance schedule of a permit no later than 14 days following the scheduled date of each requirement.

2.4.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.5 Corrective Information

2.5.1 If a permittee becomes aware that it failed to submit a relevant fact in a permit application or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit the relevant fact or the correct information.

2.5.2 Information must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.6 Bypass of Treatment Facilities

2.6.1 Prohibition of Bypass

Bypass is prohibited. The Department may take enforcement action against a permittee for any bypass, unless:

2.6.1.1 The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2.6.1.2 There were no feasible alternatives to the bypass, including use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. However, this condition is not satisfied if the permittee, in the exercise of reasonable engineering judgment, should have installed adequate back-up equipment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

2.6.1.3 The permittee provides notice to the Department of a bypass event in the manner, as appropriate, under Appendix A, Part 2.6.2.

2.6.2 Notice of bypass

2.6.2.1 For an anticipated bypass, the permittee submits notice at least 10 days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions of Appendix A, Parts 2.6.1.1 and 2.6.1.2.

2.6.2.2 For an unanticipated bypass, the permittee submits 24-hour notice, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting.

2.6.2.3 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.6.3 Notwithstanding Appendix A, Part 2.6.1, a permittee may allow a bypass that:

2.6.3.1 Does not cause an effluent limitation to be exceeded, and

2.6.3.2 Is for essential maintenance to assure efficient operation.

2.7 Upset Conditions

2.7.1 In any enforcement action for noncompliance with technology-based permit effluent limitations, a permittee may claim upset as an affirmative defense. A permittee seeking to establish the occurrence of an upset has the burden of proof to show that the requirements of Appendix A, Part 2.7.2 are met.

2.7.2 To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

2.7.2.1 An upset occurred and the permittee can identify the cause or causes of the upset;

2.7.2.2 The permitted facility was at the time being properly operated;

2.7.2.3 The permittee submitted 24-hour notice of the upset, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting; and

2.7.2.4 The permittee complied with any mitigation measures required under 18 AAC 83.405(e) and Appendix A, Part 1.5, Duty to Mitigate.

2.7.3 Any determination made in administrative review of a claim that noncompliance was caused by upset, before an action for noncompliance is commenced, is not final administrative action subject to judicial review.

2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges

2.8.1 In addition to the reporting requirements under 18 AAC 83.410, an existing manufacturing, commercial, mining, and silvicultural discharger shall notify the Department as soon as that discharger knows or has reason to believe that any activity has occurred or will occur that would result in:

2.8.1.1 The discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.1.1 One hundred micrograms per liter (100 µg/L);

2.8.1.1.2 Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, 500 micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol, and one milligram per liter (1 mg/L) for antimony;

2.8.1.1.3 Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.1.4 The level established by the Department in accordance with 18 AAC 83.445.

2.8.1.2 Any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

2.8.1.2.1 Five hundred micrograms per liter (500 µg/L);

2.8.1.2.2 One milligram per liter (1 mg/L) for antimony;

2.8.1.2.3 Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or

2.8.1.2.4 The level established by the Department in accordance with 18 AAC 83.445.

3.0 Monitoring, Recording, and Reporting Requirements

3.1 Representative Sampling

A permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into the receiving waters. Samples and measurements must be representative of the volume and nature of the monitored activity or discharge.

3.2 Reporting of Monitoring Results

The permittee shall summarize monitoring results on the annual report form or approved equivalent. The permittee shall submit its annual report at the interval specified in the permit. The permittee shall sign and certify all annual reports and other reports in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirement and Penalties. The permittee shall submit the legible originals of these documents to the DEC Compliance and Enforcement Program at the address in Appendix A, Part 1.1.2.

3.3 Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring must be included in the calculation and reporting of the data submitted in the DMR or annual report required by Appendix A, Part 3.2. All limitations that require averaging of measurements must be calculated using an arithmetic means unless the Department specifies another method in the permit. Upon request by the Department, the permittee must submit the results of any other sampling and monitoring regardless of the test method used.

3.4 Twenty-four Hour Reporting

A permittee shall report any noncompliance event that may endanger health or the environment as follows:

3.4.1 A report must be made:

3.4.1.1 Orally within 24 hours after the permittee becomes aware of the circumstances, and

3.4.1.2 In writing within five days after the permittee becomes aware of the circumstances.

3.4.2 A report must include the following information:

3.4.2.1 A description of the noncompliance and its causes, including the estimated volume or weight and specific details of the noncompliance;

3.4.2.2 The period of noncompliance, including exact dates and times;

3.4.2.3 If the noncompliance has not been corrected, a statement regarding the anticipated time the noncompliance is expected to continue; and

3.4.2.4 Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3.4.3 An event that must be reported within 24 hours includes:

3.4.3.1 An unanticipated bypass that exceeds any effluent limitation in the permit (see Appendix A, Part 2.6, Bypass of Treatment Facilities).

3.4.3.2 An upset that exceeds any effluent limitation in the permit (see Appendix A, Part 2.7, Upset Conditions).

3.4.3.3 A violation of a maximum daily discharge limitation for any of the pollutants listed in the permit as requiring 24-hour reporting.

3.4.4 The Department may waive the written report on a case-by-case basis for reports under Appendix A, Part 3.4 if the oral report has been received within 24 hours of the permittee becoming aware of the noncompliance event.

3.4.5 The permittee may satisfy the written reporting submission requirements of Appendix A, Part 3.4 by submitting the written report via e-mail, if the following conditions are met:

3.4.5.1 The Noncompliance Notification Form or equivalent form is used to report the noncompliance;

3.4.5.2 The written report includes all the information required under Appendix A, Part 3.4.2;

3.4.5.3 The written report is properly certified and signed in accordance with Appendix A, Parts 1.12;

3.4.5.4 The written report is scanned as a PDF (portable document format) document and transmitted to the Department as an attachment to the e-mail; and

3.4.5.5 The permittee retains in the facility file the original signed and certified written report and a printed copy of the conveying email.

3.4.6 The e-mail and PDF written report will satisfy the written report submission requirements of this permit provided the e-mail is received by the Department within five days after the time the permittee becomes aware of the noncompliance event and the e-mail and written report satisfy the criteria of Part 3.4.5. The e-mail address to report noncompliance is: dec-wqreporting@alaska.gov

3.5 Other Noncompliance Reporting

A permittee shall report all instances of noncompliance not required to be reported under Appendix A, Parts 2.4 (Compliance Schedules), 3.3 (Additional Monitoring by Permittee), and 3.4 (Twenty-four Hour Reporting) at the time the permittee submits monitoring reports under Appendix A, Part 3.2. (Reporting of Monitoring Results). A report of noncompliance under this part must contain the information listed in Appendix A, Part 3.4.2 and be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

4.0 Penalties for Violations of Permit Conditions

Alaska laws allow the State to pursue both civil and criminal actions concurrently. The following is a summary of Alaska law. Permittees should read the applicable statutes for further substantive and procedural details.

4.1 Civil Action

Under AS 46.03.760(e), a person who violates or causes or permits to be violated a regulation, a lawful order of the Department, or a permit, approval, or acceptance, or term or condition of a permit, approval or acceptance issued under the program authorized by AS 46.03.020 (12) is liable, in a civil action, to the State for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than $10,000 for each day after that on which the violation continues, and that shall reflect, when applicable:

4.1.1 Reasonable compensation in the nature of liquated damages for any adverse environmental effects caused by the violation, that shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

4.1.2 Reasonable costs incurred by the State in detection, investigation, and attempted correction of the violation;

4.1.3 The economic savings realized by the person in not complying with the requirements for which a violation is charged; and

4.1.4 The need for an enhanced civil penalty to deter future noncompliance.

4.2 Injunctive Relief

4.2.1 Under AS 46.03.820, the Department can order an activity presenting an imminent or present danger to public health or that would be likely to result in irreversible damage to the environment be discontinued. Upon receipt of such an order, the activity must be immediately discontinued.

4.2.2 Under AS 46.03.765, the Department can bring an action in Alaska Superior Court seeking to enjoin ongoing or threatened violations for Department-issued permits and Department statutes and regulations.

4.3 Criminal Action

Under AS 46.03.790(h), a person is guilty of a Class A misdemeanor if the person negligently:

4.3.1 Violates a regulation adopted by the Department under AS 46.03.020(12);

4.3.2 Violates a permit issued under the program authorized by AS 46.03.020(12);

4.3.3 Fails to provide information or provides false information required by a regulation adopted under AS 46.03.020(12);

4.3.4 Makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with a permit issued under or a regulation adopted under AS 46.03.020(12); or

4.3.5 Renders inaccurate a monitoring device or method required to be maintained by a permit issued or under a regulation adopted under AS 46.03.020(12).

4.4 Other Fines

Upon conviction of a violation of a regulation adopted under AS 46.03.020(12), a defendant who is not an organization may be sentenced to pay a fine of not more than $10,000 for each separate violation (AS 46.03.790(g)). A defendant that is an organization may be sentenced to pay a fine not exceeding the greater of: (1) $200,000; (2) three times the pecuniary gain realized by the defendant as a result of the offense; or (3) three times the pecuniary damage or loss caused by the defendant to another, or the property of another, as a result of the offense (AS 12.55.035(c)(B), (c)(2), and (c)(3)).

APPENDIX B ACRONYMS

7Q10	7-day, 10-year low flow
AAC	Alaska Administrative Code
ADF&G	Alaska Department of Fish and Game
APDES	Alaska Pollutant Discharge Elimination System
APMA	Annual Placer Mining Application
BAT/BCT	Best Available Technology/Best Conventional Technology
BMP	Best Management Practice
CFR	Code of Federal Regulations
CWA	Clean Water Act
DEC	Alaska Department of Environmental Conservation
DNR	Alaska Department of Natural Resources
EFH	Essential Fish Habitat
ELG	Effluent Limitation Guidline
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FR	Federal Register
GP	General Permit
GPM or gpm	Gallons per minute
MCL	Maximum Contaminant Level
ml/L	Milliliters per Liter
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTU	Nephelometric Turbidity Unit
SPCC	Spill Prevention Control and Countermeasure
µg/L	Micrograms per Liter
U.S.C.	United States Code
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey
WQS	Water Quality Standards

APPENDIX C DEFINITIONS

5-Year, 6-Hour Rainfall Event	The maximum 6-hour precipitation event with a probable recurrence interval of once in 5 years, as defined by the National Weather Service in Technical Paper Number 40, Rainfall Frequency Atlas of the United States, May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom
7-day, 10-year low flow (7Q10)	Seven-day, consecutive low flow with a ten year return frequency; the lowest stream flow for seven consecutive days that would be expected to occur once in ten years
Alaska Pollutant Discharge Elimination System (APDES)[a]	The state's program, approved by EPA under 33 U.S.C. 1342(b), for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under 33 U.S.C. 1317, 1328, 1342, and 1345
Annual	Once per calendar year
Application	A written "notice of intent" pursuant to 18 AAC 205
Best Management Practices (BMPs)[a]	Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, waste disposal, or drainage from mined areas.
Bypass[a]	The intentional diversion of waste streams from any portion of a treatment facility
Clean Water Act (CWA)[a]	The federal law codified at 33 U.S.C. 1251-1387, also referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972
Commissioner[a]	The commissioner of the Alaska Department of Environmental Conservation or the commissioner's designee
Criterion[b]	A set concentration or limit of a water quality parameter that, when not exceeded, will protect an organism, a population of organisms, a community of organisms, or a prescribed water use with a reasonable degree of safety.
Department[a]	The Alaska Department of Environmental Conservation
Director[a]	The commissioner or the commissioner's designee assigned to administer the APDES program or a portion of it, unless the context identifies an EPA director
Discharge[a]	When used without qualification, means the discharge of a pollutant
Drainage Water	Incidental surface waters from diverse sources such as rainfall, snow melt or permafrost melt
Effluent[b]	The segment of a wastewater stream that follows the final step in a treatment process and precedes discharge of the wastewater stream to the receiving environment
Estimated	A way to estimate the discharge volume. Approvable estimations include, but are not limited to, the number of persons per day at the facility, seepage volume, noncompliance event volume and weight, etc.
Existing Facilities	Those mechanical operations facilities having coverage under the 2005 Mechanical Placer Miners General Permit
Expanding Facility	Any facility increasing in size such as to affect the discharge but operating within the permit area covered by its general permit

a) See 18 AAC 83
b) See 18 AAC 70.990

Grab Sample	A single instantaneous sample collected at a particular place and time that represents the composition of wastewater only at that time and place
Hydraulicking	Both the hydraulic removal of overburden and the use of hydraulic power to move raw rock to the point of processing (i.e. to the gate of the sluice or other processing equipment).
Infiltration Water	Water that permeates through the earth into the plant site
Instantaneous Maximum	The maximum value measured at any time
Make-up Water	That volume of water needed to replace process water lost due to evaporation and seepage in order to maintain the quantity necessary for the operation of the beneficiation process
Method Detection Limit (MDL)[c]	The minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte
Mining Season	The time between the start of mining in a calendar year and when mining has ceased for that same calendar year
Mixing Zone[b]	The volume of water adjacent to a discharge in which wastes discharged mix with the receiving water
Moving Facility	Any facility that moves its outfall outside the area covered by its general permit
Nephelometric Turbidity Unit (NTU)	An expression of the optical property that causes light to be scattered and absorbed rather than transmitted in a straight line through the water
New Facility	A facility that has not operated in the area specified in the NOI prior to the submission of the NOI
New Water	Water from any discrete source such as a river, creek, lake or well which is deliberately allowed or brought into the plant site
Permittee	A company, organization, association, entity, or person who is issued a wastewater permit and is responsible for ensuring compliance, monitoring, and reporting as required by the permit
Plant Site	The area occupied by the mine, necessary haulage ways from the mine to the beneficiation process, the beneficiation area, the area occupied by the wastewater treatment storage facilities and the storage areas for waste materials and solids removed from the wastewaters during treatment
Pollutant[a]	Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under 42 U.S.C. 2011), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste discharged into water
Receiving Waterbody	Waters such as lakes, rivers, streams, creeks, wetlands, or any other surface waters that receive wastewater discharges
Recommencing Facilities	Those facilities that may have let permit coverage lapse but still meet the coverage requirements of the Mechanical Placer Miners General Permit
Resident Fish	Arctic grayling, northern pike, rainbow trout, lake trout, brook trout, cutthroat trout, whitefish, sheefish, Arctic Char (Dolly Varden), burbot, and landlocked coho, king,

a) See 18 AAC 83
b) See 18 AAC 70.990

	and sockeye salmon
Settleable Solids[b]	Solid material of organic or mineral origin that is transported by and deposited from water, as measured by the volumetric Imhoff cone method and at the method detection limits specified in method 2540(F), *Standard Methods for the Examination of Water and Wastewater*, 18th edition (1992), adopted by reference in 18 AAC 70.020(c)(1)
Severe Property Damage[a]	Substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
Short Circuiting	Ineffective settling due to inadequate or insufficient retention characteristics, excessive sediment deposition, embankment infiltration/percolation, lack of maintenance, etc.
Turbidity Modification	The procedures used to calculate a higher turbidity limit based on a mass balance equation that relates upstream and effluent flow and turbidity to downstream flow and turbidity. The basic form of this equation is: $Q1C1 + Q2C2 = Q3C3,$ where C1 = effluent turbidity; C2 = natural background turbidity; C3 = receiving water downstream turbidity after mixing where the allowable increase is 5 NTU above background; Q1 = effluent flow; Q2 = receiving water flow upstream from the discharge (i.e., 7Q10); and Q3 = total receiving water flow downstream from discharge after complete mixing (Q1 + Q2).
Upset[a]	An exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
Wastewater	All water used in and resulting from the beneficiation process (including but not limited to the water used to move the ore to and through the beneficiation process, the water used to aid in classification, and the water used in gravity separation), mine drainage, and infiltration and drainage waters that commingle with mine drainage or waters resulting from the beneficiation process
Wastewater Treatment	Any process to which wastewater is subjected in order to remove or alter its objectionable constituents and make it suitable for subsequent use or acceptable for discharge to the environment
Waters of the United States or Waters of the U.S.	Has the meaning given in 18 AAC 83.990(77)
Week	The time period of Sunday through Saturday

a) See 18 AAC 83
b) See 18 AAC 70.990

APPENDIX D MIXING ZONE AUTHORIZATIONS

Table D-1 presents facilities with mixing zones to be authorized under the General Permit.

Table D-1: Mixing Zone Authorizations

APMA [a]	APDES [b]	Permittee	Receiving Water	USGS Quad Map	Effluent Limits		Mixing Zone Length (ft.) [e]	Authorized Discharge Period [f]	Status [g]
					Turbidity (NTU) [c]	Flow (GPM) [d]			
F9434	AKG370609	Alvin C. Hanson	Boulder Crk.	Solomon D-6	74	50	800	Year Round	N
F7104	AKG370588	Carl J. Congdon	Quail Crk	Livengood B-6	665	10	670	6/16-4/30	E
A5696	AKG370269	Clark-Wiltz Co.	Ganes Crk.	Iditarod D-2	470	100	3713	6/16-4/30	E
F9004	AKG370223	Cy Bras	Canyon Crk.	Eagle A-1	142	200	1843	6/16-4/30	E
A5570	AKG370114	Dan & Cindy Plano	Innoko R.	Ophir A-1, A-2	144	800	3735	Year Round	E
F9607	AKG370540	David Jacobs	Eva Crk.	Fairbanks A-4	29	150	359	Year Round	E
F7332	AKG370256	Dawn & John Lines	NF Harrison Crk.	Circle B-3	32	50	174	6/16-4/30	E
F5909	AKG370391	Donald Stein, DEPEM	Gilmore Crk.	Fairbanks D-1	139	25	433	Year Round	E
A2776	AKG370649	Estill DeWitt	Alfred Crk.	Anchorage D-2	1500	10	1195	Year Round	E
F9149	AKG370394	George Seuffert	Faith Crk	Circle B-5	856	30	3150	6/16-4/30	N
A5590	AKG370131	Girdwood Mining Co.	Crow Crk.	Anchorage A-6	47	500	1083	Year Round	E
F6953	AKG370220	Great Divide Mining Co.	Lil. Boulder Crk.	Tanana A-3	29	250	615	6/16-4/30	E
F6006	AKG370214	Int.Alaskana Assoc.	Harrison Crk.	Circle B-3	39	300	845	6/16-4/30	E
A2729	AKG370595	Ivan Merrill	Falls Crk.	Seward B-7	308	150	2000	5/15-7/15	N
A3027	AKG370728	Ivan Merrill & John Deacon	Frenso Crk.	Seward C-7	211	150	339	Year Round	E
F7106	AKG370713	L & L Mining	Eagle Crk.	Circle B-3	339	10	474	Year Round	E
F6859	AKG370559	Larry Weisz	Hammond R.	Wiseman B-1	921	150	2165	Year Round	E
F7223	AKG370154	Mark Gumaer	Dick Crk.	Bendeleben D-6	104	50	838	Year Round	E
F5997	AKG370184	Miller Creek Mining Co.	Ketchem Crk.	Circle B-2	22	125	152	Year Round	E
F5845	AKG370070	N.B. Tweet & Sons	Kougarok R.	Bendeleben C-6	320	300	5280	6/16-8/31	E
F9702	AKG370589	Ralph Hamm, Slisco Inc.	Nugget Crk.	Chandaler B-6	26	400	432	6/16-4/30	E

Table D-1: Mixing Zone Authorizations

APMA [a]	APDES [b]	Permittee	Receiving Water	USGS Quad Map	Effluent Limits		Mixing Zone Length (ft.) [e]	Authorized Discharge Period [f]	Status [g]
					Turbidity (NTU) [c]	Flow (GPM) [d]			
F7194	AKG370718	Rampart Exploration	American Crk.	Tanana A-3	18	200	337	Year Round	E
A5657	AKG370597	Roland Boehne	Red Crk	Talk. Mtns. B-1	23	170	624	Year Round	E
A5657	AKG370598	Roland Boehne	Joe Crk	Talk. Mtns. B-1	64	170	1587	Year Round	E
F9049	AKG370007	Ron Wrede	Switch Crk.	Circle B-2	66	20	91	Year Round	N
F2015	AKG370556	Sheldon Maier	Montana Crk	Eagle B-3	28	150	232	Year Round	E
F9016	AKG370226	Taiga Mining Co., Inc.	Aloha Crk.	Hughes A-6	75	200	614	5/1-6/15	E
F9017	AKG370227	Taiga Mining Co., Inc.	Clear Crk.	Hughes A-6	78	200	1038	5/1-6/15	E
A6191	AKG370039	Tod Bauer	Eldorado Crk.	Talk. Mtns. C-6, D-6	139	500	2860	Year Round	E
F4399	AKG370412	William J. Aldridge	Poker Crk.	Eagle A-1	20	150	180	Year Round	E

Notes:

a. Annual Placer Mining Application number

b. Alaska Pollution Discharge Elimination System authorization number

c. The Turbidity Limit is the modified maximum allowed turbidity level, measured in Nephelometric Turbidity Units (NTU), at the point of discharge into the receiving waterbody and is calculated using the 7-day, 10-year low flow.

d. The Flow Limit is the maximum allowed discharge that could result from the operation as indicated by the applicant.

e. The Mixing Zone Length is the calculated length downstream, in feet, of the modified mixing zone, measured from the point of discharge into the receiving waterbody. The mixing zone length is calculated based on 95% complete mixing of the modified turbidity limit during a 2-year, 1-day high flow event.

f. Timing restrictions may be placed on the turbidity modification as a result of fish spawning habitat in the receiving waterbody.

g. E: Extended facilities that were issued mixing zones under the 2005 general permit and submitted a Notice of Intent prior to the expiration date.
N: New mixing zone authorizations under the current permit

APPENDIX E NOTICE OF INTENT INFORMATION

Mechanical Placer Miners General Permit: AKG370000

PERMITTEE NAME:			**PREVIOUS NPDES PERMIT NUMBER (if any)** AKG370 _____
ADDRESS	SUMMER	WINTER	**WATER THAT THE FACILITY DIRECTLY DISCHARGES TO (Receiving Water) *:**
PHONE			
OPERATOR NAME: ☐ Check if same as Permittee			**PLEASE PROVIDE A DRAWING OF YOUR OPERATION ON THE BACK OF OR ATTACHED TO THE NOI SHEET THAT IS SUBMITTED.**
ADDRESS	SUMMER	WINTER	
PHONE			
FACILITY NAME:		MINING DISTRICT:	LATITUDE:
NEAREST TOWN:		New Source? ☐ Y ☐ N (e.g. virgin ground)	LONGITUDE:
QUAD MAP, TOWNSHIP, RANGE, SECTION:		MERIDIANS: __ Umiat __ Kateel __ Fairbanks __ Seward __ Copper River	

Type of Operation:	MECHANICAL __No discharge __Discharge	HYDRAULICKING __No discharge only	Maximum Effluent Flow anticipated from your operation: _____ GPM
			Amount of Material Processed:

Do you wish to receive a mixing zone and turbidity modification? ☐ Y ☐ N For additional information contact DEC at 907-451-2142

* The general permit does not apply to facilities that are proposed to be located in National Park System Units (i.e., Parks and Preserves), National Monuments, National Sanctuaries, National Wildlife Refuges, National Conservation Areas, National Wilderness Areas, National Critical Habitat Areas, Tier 3 waters, or waters designated as wild under the Wild & Scenic Rivers Act.

SIGNATURE:	**DATE:**
PRINTED NAME:	

Certification: 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.

Permittee Name:	**Previous NPDES PERMIT NUMBER (if any)** AKG370 _____
Receiving Water:	

Drawing:

Accessible by: ☐ 2WD ☐ 4WD ☐ ATV ☐ Boat ☐ Airplane ☐ Helicopter
Directions to facility from nearest highway (if applicable):

Attachment 1 - Settleable Solids Sampling Protocol

Settleable Solids Sampling Protocol

1. Grab samples shall be collected.
2. Samples shall be collected in a sterile one liter polypropylene or glass container.
3. Samples must be cooled to 4 degrees Celsius / 39 degrees Fahrenheit (iced), if analysis is not performed immediately.
4. Cooled samples must be analyzed within 48 hours of sample collection.

Settleable Solids Analysis Protocol

1. Fill an Imhoff cone to the liter mark with a thoroughly mixed sample.
2. Settle for 45 minutes, then gently stir the sides of the cone with a rod or by gently spinning the cone.
3. Settle 15 minutes longer, then record the volume of settleable matter in the cone as milliliters per liter. Do not estimate any floating material. The lowest measurable level on the Imhoff cone is 0.1 ml/l. Any settleable material below the 0.1 ml/l mark shall be recorded as trace.

Reference

1. Standard Methods for the Examination of Water and Wastewater , 18th Edition, 1992

Attachment 2 - Turbidity Sampling Protocol

Turbidity Sampling Protocol

1. Grab samples shall be collected.
2. Samples shall be collected in a sterile one liter polypropylene or glass container.
3. Samples must be cooled to 4 degrees Celsius / 39 degrees Fahrenheit (iced)), if analysis is not performed immediately.
4. Cooled samples must be analyzed within 48 hours of sample collection.

Attachment 3 - Arsenic Sampling Protocol

Arsenic Sampling Protocol

1. Grab samples shall be collected.
2. Samples shall be collected in a sterile one liter polypropylene or glass container.
3. Samples must be acidified promptly with nitric acid (HNO3), to a pH less than 2 or sent to a laboratory within 48 hours of sample collection. Non-acidified samples must be chilled to 4 degrees Celsius / 39 degrees Fahrenheit (iced) until acidified at the laboratory.
4. Acidified samples must be analyzed within 180 days of the sample collection date.
5. Samples must be acidified for at least 16 hours prior to analysis.

Figures

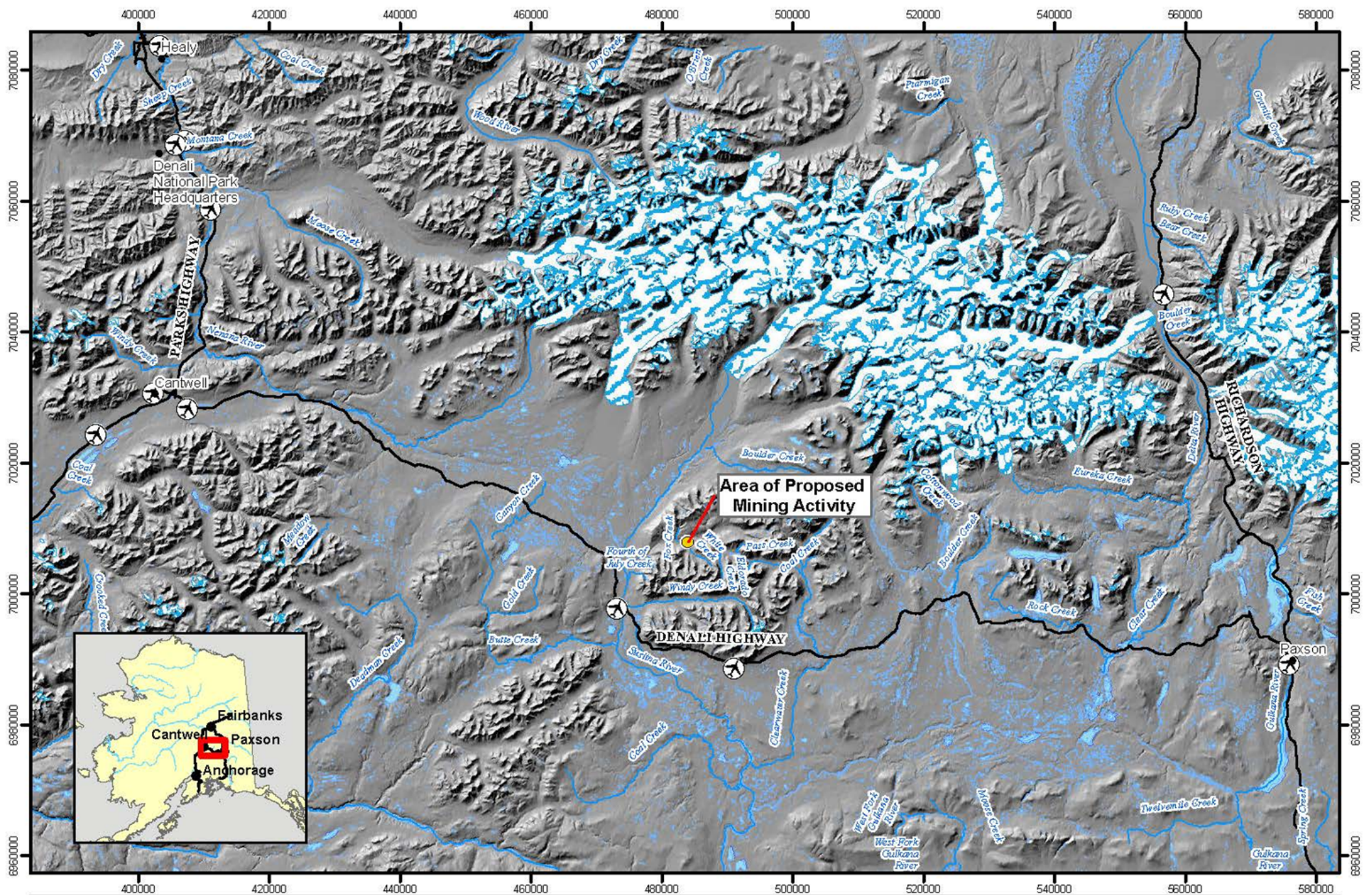


Figure 1: General Location Valdez Creek Project

Valdez Creek Mining LLC Alaska	REV NO. A
	AUTHOR: RDI-MRA
	REVIEWED BY:
DATE: 3/26/2013	FILE: SRK_GeneralLocationMap_8x11L_v01.mxd

Figure 3: Mean Annual Precipitation

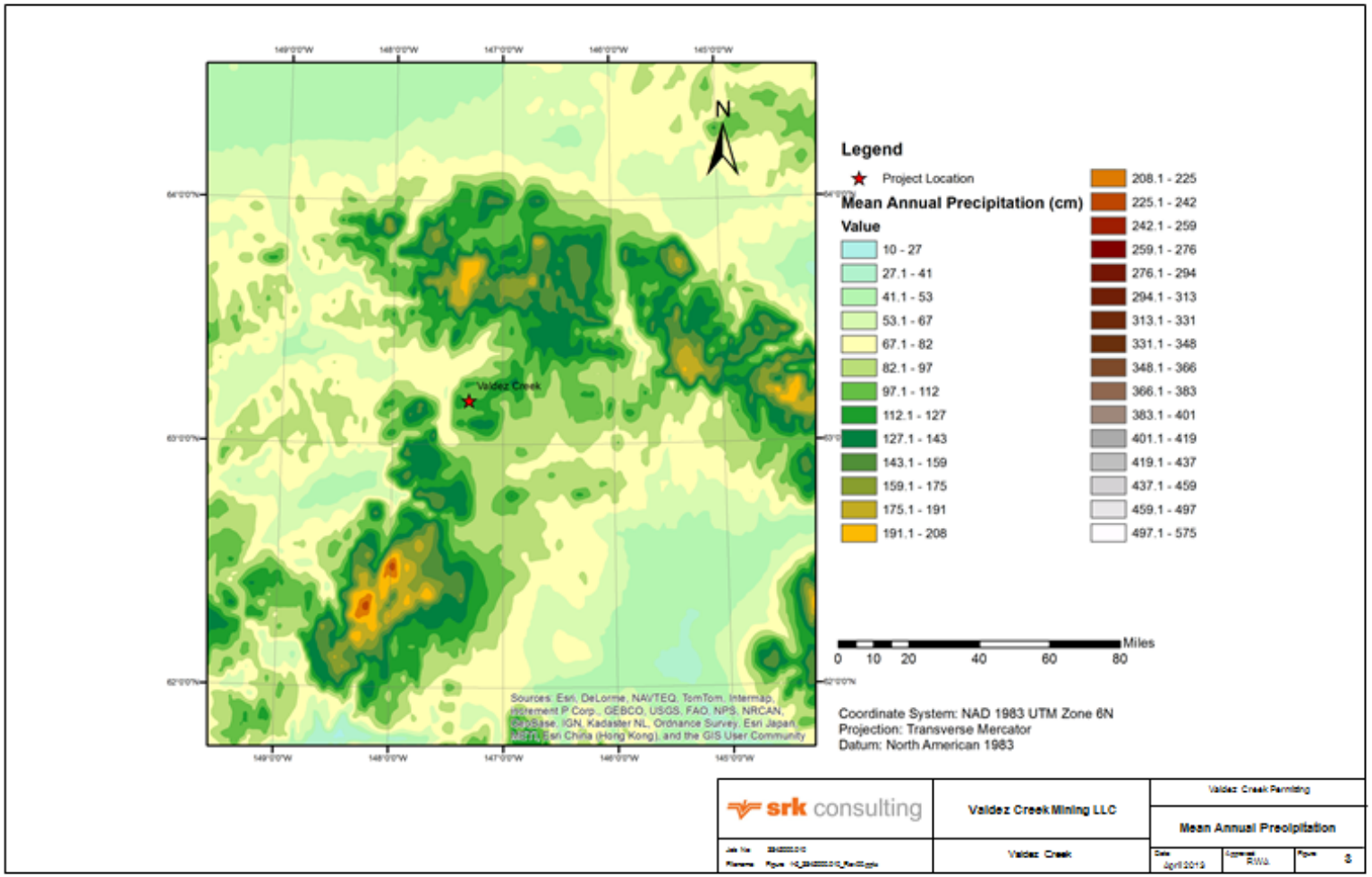


Figure 4: Mean Annual Runoff

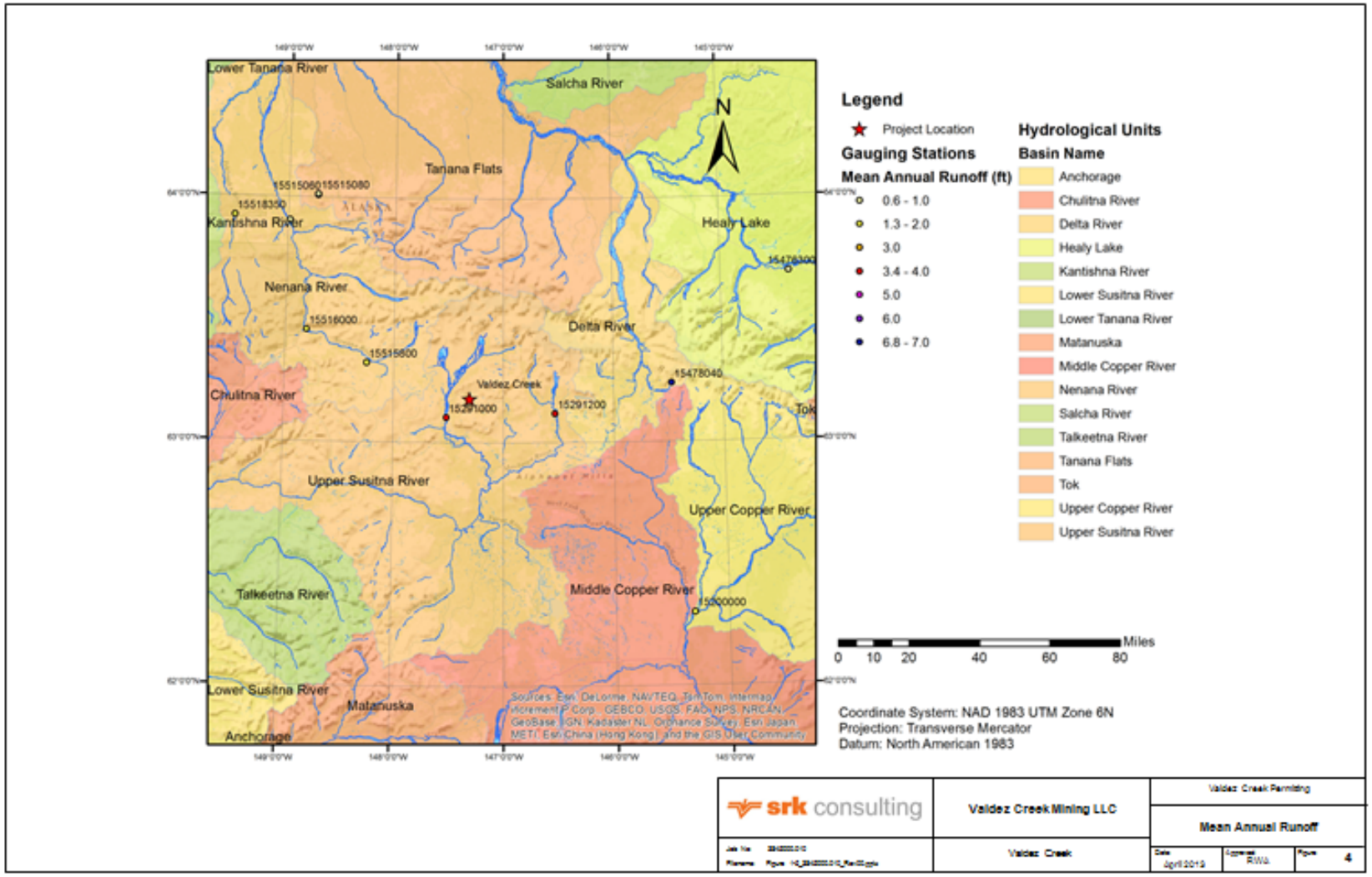
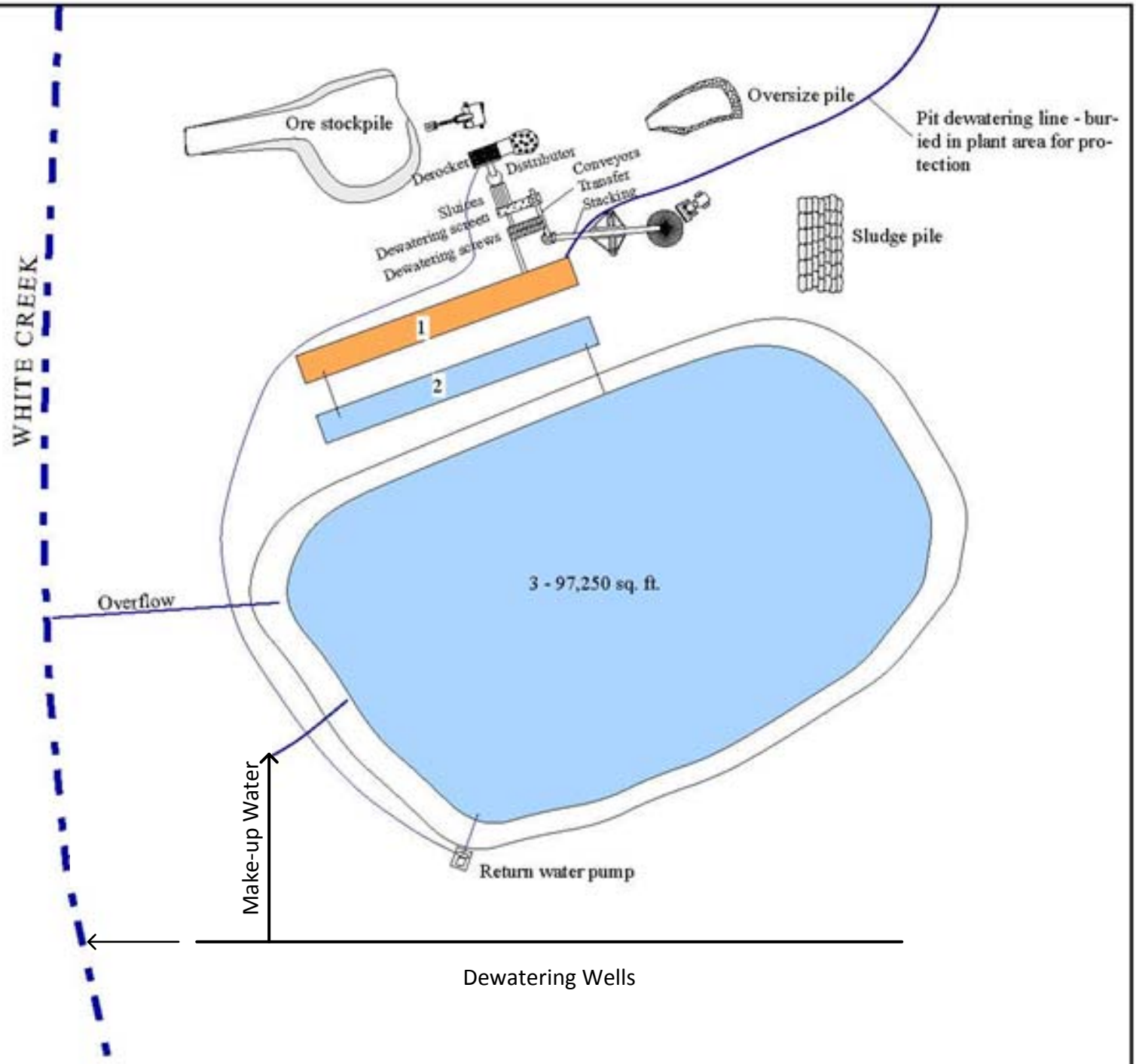


Figure 5: Satellite Image of Proposed Mine Area (7/27/12)



Conceptual layout of wash plant at Skraback claims. The layout is fairly self-explanatory. Coarse and finer tailings will be hauled to the Overburden pile by the ore haulage trucks. The silt fraction reporting to the settling ponds will be stockpiled and used for reclamation as needed.

A few needs are
Derocker - 40 hp
Dewatering screen - 15 hp
Transfer conveyor - 10 hp
Dewatering screws - 20 hp
Stacking conveyor - 35 hp
Return water pump - 95 hp

Figure 6: Conceptual Wash Plant Layout

VALDEZ CREEK MINING COMPANY				
CONCEPTUAL LAYOUT OF WASH PLANT - SKRABACK SITE				
H2T MINE ENGINEERING SERVICES, LLP				
Scale: 1"=100'	By: RAH	Reviewed:	Date: 3/21/13	Drawing No. VCMC-1A