St. Cloud Mining Company

STORM WATER POLLUTION PREVENTION PLAN

ST. CLOUD ZEOLITE OPERATION

WINSTON, NEW MEXICO

Updated November 5, 2025

EXECUTIVE SUMMARY

This Storm Water Pollution Prevention Plan (SWP3) was developed for the St. Cloud Mill Site, Winston, New Mexico, to satisfy the requirements for National Pollution Discharge Elimination System (NPDES) general permits for storm water discharges associated with industrial activity, as described in Federal Register, Volume 57, No. 175, Part III September 9, 1992. This site has been active since 1983 and is currently a zeolite and aggregate processing facility owned and operated by St. Cloud Mining Company.

Zeolites are a natural mineral material that is formed as a volcanic tuff with unique chemical and physical properties. The natural zeolites occurring and mined and processed at the St. Cloud facility are characterized as clinoptilolite. Clinoptilolite is an aluminosilicate lattice structured mineral which acts as a molecular sieve, binding with elements with a positive electrical charge, hydrocarbons and organic materials. It is widely used as animal feed supplements and for environmental purposes in air and water filtration, odor control and absorbent products.

Copies of the Notice of Intent for storm water discharges, associated with industrial activity under the NPDES general permit and the storm water general permit coverage notice, can be found in Appendix A. Throughout this document are specific terms and abbreviations that have specific meaning relative to the Environmental Protection Agency's (EPA's) stormwater management. A glossary of terms is provided in Appendix B to clarify the usage of these terms to the reader.

This is an updated, preliminary plan that will cover the responsibilities of the pollution prevention team, the assessment of potential pollution sources, the plan design and best management practices, and the implementation and evaluation of the pollution prevention plan. When the site is completely reclaimed, a Notice of Termination will be submitted to EPA.

STORM WATER POLLUTION PREVENTION PLAN
ST. CLOUD MILL SITE
WINSTON, NEW MEXICO

EPA BASELINE GENERAL PERMIT REQUIREMENTS

CERTIFICATION

In order to ensure that this Storm Water Pollution Prevention Plan is completely developed and adequately implemented, the NPDES storm water permit requires that authorized representative(s) of the operator sign and certify the plan.

Reports/Documents Certification Statement; **Appendix B. Standard Permit Conditions.**
B.11 Signatory Requirements.

B. Your SWPPP, including changes to your SWPPP to document any corrective actions taken as required by Part 3.1, and all reports submitted to EPA, must be signed by a person described in Appendix B, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in Appendix B, Subsection 11.A;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

E. Any person signing documents in accordance with Appendix B, Subsections 11.A or 11.B above must include the following 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 gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature:_____Audie Padilla_____Date_____11/4/2025_____

Audie Padilla Superintendent
St. Cloud Mining Company

STORM WATER POLLUTION PREVENTION PLAN
ST. CLOUD MILL SITE, WINSTON, NEW MEXICO 87943
(Mailing Address: P.O. Box 196 Winston, NM 87943)

Emergency Contact:

Jason Stevens	Work Phone:	(575) 743-5215
Title: Vice President	Cell Phone:	(254) 424-8928
	Emergency Phone:	(575) 743-5215
	Email:	jstevens@stcloudmining.com

Secondary Contacts:

Audie Padilla, Supt.	Emergency Phone:	(575) 740-0385
Linda Arnett, Office Mgr.	Emergency Phone:	(575) 743-2514
Raymond Rodriguez, Plant foreman	Emergency Phone:	(575) 740-5101

Type of Operation: Zeolite and aggregate rock processing and packaging facility

Operating Schedule: M-F, 7:30 a.m. to 4:00 PM or as needed.

Number of Employees: 15- 35 full time employees

Wastewater Discharge: No wastewater is generated at the St. Cloud Zeolite Operation, and no water is discharged from this site. Any available water is used for dust abatement, blending and mixing of products, reclamation purposes and y use by employees

NPDES Permit Number: NMR05J032

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STORMWATER POLLUTION PREVENTION PLAN
ST. CLOUD MILL SITE, WINSTON, NEW MEXICO

1. POLLUTION PREVENTION TEAM

EPA GENERAL PERMIT REQUIREMENTS
Pollution Prevention Team
Part IV.D.1

Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water pollution prevention team that are responsible for developing the Storm Water Pollution Prevention Plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's Storm Water Pollution Prevention Plan.

Leader:

Jason Stevens

Title: Vice President

St. Cloud Mining Company
P.O. Box 196
Winston, NM 87901

Office Phone: (575) 743-5215
Fax: (575) 743-3333
email: jstevens@stcloudmining.com

Responsibilities:

Plan development and implementation
Develop best management practices
Assign appropriate personnel to specific functions

Qualifications:

Mr. Stevens is the Vice President of St. Cloud Mining Company. Jason and His father purchased St. Cloud in December 2024. Jason has been the Vice President for the last 5 years of the parent company that owns St. Cloud. He has been with the company for 16 years and oversees several divisions of the company including fertilizer, sales, operations, mining, resort, and golf course. He has a BA in business administration.

Team Members

Audie Padilla Title: Operations Superintendent
Office Phone: (575) 743-5215
Cell Phone: (575) 740-0385

Responsibilities:

Construct and maintain structural containments
Plan development and implementation
Develop best management practices
Inspections and monitoring
Identify toxic and hazardous materials in the facility
Identify potential spill sources
Establish incident reporting procedures
Housekeeping
Preventative maintenance
Fuel leak spill and tank rupture prevention and response
Form and record preparation

Qualifications:

Mr. Padilla began work for St. Cloud Mining Company in 1994 and has been continuously employed in positions of increasing responsibility. Mr. Padilla is working on an Associate's Degree from Western New Mexico University, and has extensive experience in heavy construction operations and equipment maintenance. He currently is the Operations Superintendent and is responsible for all site employees, operations supervision and regulatory obligations. He has attended a number of educational seminars including specialization in supervision skills, concrete production and installation, crushing and screening operations, in other maintenance and operational categories, and has received MSHA training and is an approved instructor. He is a Licensed NM Contractor.

Linda Arnett Title: Office Manager
Office Phone: (575) 743-5215

Responsibilities:

Training
Establish best management practice for training plant personnel

Recordkeeping and Reporting
Review process changes
Review environmental incidents
Determine and implement necessary changes to this plan
Coordinate incident response, cleanup and notification of authorities
Maintain records

Qualifications:

Ms. Arnett has worked in positions of increasing responsibility for St. Cloud Mining Company since 2002, currently serving as Office Manager. She has extensive experience and is responsible for maintaining records and regulatory reporting including personnel records and training

Raymond Rodriguez

Responsibilities:

Construct and maintain structural containments
Plan development and implementation
Develop best management practices
Inspections and monitoring
Identify toxic and hazardous materials in the facility
Identify potential spill sources
Establish incident reporting procedures
Housekeeping
Preventative maintenance
Fuel leak spill and tank rupture prevention and response
Form and record preparation

Qualifications:

Mr. Rodriguez began working for St Cloud Mining in 1994 until 2007 when he left to work in other construction. In 2020 he returned and has been continuously employed in positions of increasing responsibilities. Raymond has completed MSHA training to be an instructor. While employed he has attended training seminars on the crusher and screening plant.

Site Drainage and Potential Pollutant Sources

5.1.2 Site Description.

Your SWPPP must include the following:

• Activities at the Facility. Provide a description of the nature of the industrial activities at your facility.

• General location map. Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of your facility and all receiving waters for your stormwater discharges.

2. DESCRIPTION OF POTENTIAL SOURCES OF MATERIALS THAT COULD AFFECT STORM WATER QUALITY

The site is located approximately nine miles southwest of Winston, New Mexico in Sec. 4, T 12 S., R. 8 W. This facility has been used since 1991 by St. Cloud Mining Co. for crushing, milling and stockpiling a variety of mineral products. Since February 1991, zeolite rock has been processed, packaged and transported from the site. The processing facilities are operated under various New Mexico Environment Department (NMED) air quality permits, and are under the jurisdiction and regular inspection of the Mine Safety and Health Administration (MSHA) and other regulatory authorities. A summary of environmental permits and registrations for St. Cloud Mill are listed in Appendix C.

Zeolite is a natural mineral material that is formed as a volcanic tuff with unique chemical and physical properties. The natural zeolites occurring and mined and processed at the St. Cloud facility are characterized as clinoptilolite. Clinoptilolite is an aluminosilicate lattice structured mineral which acts as a molecular sieve, binding with elements with a positive electrical charge, hydrocarbons and organic materials. It is widely used as for environmental purposes in air and water filtration, odor control and absorbent products.

St. Cloud natural zeolite mined is crushed, dried, sized and packaged without beneficiation or chemical treatment other than blending or mixing with fertilizers, surfactants, or other natural ingredients used to enhance the environmental or agricultural properties of the products.

The climate is typical desert southwest environment with a mean annual precipitation of about 12 inches. Surface water runoff occurs mainly during the summer thunder storm season, for the rest of the year drainages are typically dry. Ground water is used for dust abatement, mixing and blending of products and employee facilities.

Structures to divert upstream storm waters away from the plant and zeolite production area and containments for storm water runoff from the plant and mine site were in place prior to operating the facility. When possible, the storm water runoff collected from the site is used for dust abatement or is otherwise contained.

2.A Drainage

The plant and mine site is isolated by diversions and structural controls from natural drainage areas. The South Fork of the Cuchillo Negro Creek (South Fork) is adjacent to the operation to the south, but no water that contacts unreclaimed process facilities connects with this ephemeral watercourse. South Fork, generally dry throughout most of the year, is a tributary to the Rio Grande (approximately 35 miles to the east). A more general map of the site and surrounding area, with drainage areas and water courses, are shown in Figure 1.

Figure 1 Site Map showing location of major water course and drainage surrounding the St. Cloud Zeolite Operation.

2.A.1 Site Map

- the size of the property in acres;
- the location and extent of significant structures and impervious surfaces;
- directions of stormwater flow (use arrows);
- locations of all existing structural control measures;

- locations of all receiving waters in the immediate vicinity of your facility, indicating if any of the waters are impaired and, if so, whether the waters have TMDLs established for them;
- locations of all stormwater conveyances including ditches, pipes, and swales;
- locations of potential pollutant sources identified under Part 5.1.3.2;
- locations where significant spills or leaks identified under Part 5.1.3.3 have occurred;
- locations of all stormwater monitoring points;
- locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2, etc), indicating if you are treating one or more outfalls as "substantially identical" under Parts 4.2.3, 5.1.5.2, and 6.1.1, and an approximate outline of the areas draining to each outfall;
- municipal separate storm sewer systems, where your stormwater discharges to them;
- locations and descriptions of all non-stormwater discharges identified under Part 2.1.2.10;
- locations of the following activities where such activities are exposed to precipitation:
- fueling stations;
- vehicle and equipment maintenance and/or cleaning areas;
- loading/unloading areas;
- locations used for the treatment, storage, or disposal of wastes;
- liquid storage tanks;
- processing and storage areas;
- immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
- transfer areas for substances in bulk; and
- machinery; and
- locations and sources of run-on to your site from

The facility site map must include:

An outline of the drainage area of each storm water outfall

Location of any existing structural control measures used to reduce pollutants in storm water runoff

Surface water bodies

- Location where significant materials are exposed to precipitation
- Location where major spills or leaks have occurred
- Location for each of the following activities (where exposed to storm water):
  - Fueling stations
  - Vehicle and equipment maintenance and/or cleaning areas
  - Loading/unloading areas
  - Treatment, storage, or waste disposal areas
  - Liquid storage tanks
  - Processing and storage areas

A detailed map of the site area with locations of buildings, exposed materials, diversion and retention structures, and with other details required by the EPA General Rule are illustrated in Plate 1.

2.A.2 Direction of Storm Flows

The arrows on Plate 1 show the direction of storm water runoff. The processing facility is an area in which potential sources exist which could affect storm water if not contained. To minimize the potential for effects, containment embankments, diversion dikes and other structures have been built in and around the area. These structures collect and contain storm water runoff from the site and divert upstream storm water flow from the operating area. Water at the site is used for dust abatement, and does not discharge outside of containment facilities.

2.A.3 Description of Facility Areas that Could Potentially Generate Storm Water Runoff

EPA GENERAL PERMIT REQUIREMENTS
Description of Potential Pollutant Sources
5.1.3

You must document areas at your facility where industrial materials or activities are exposed to stormwater and from which allowable non-stormwater discharges are released. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description must include:

The St. Cloud Zeolite Operation has minimal potential to add significant amounts of any material to storm water discharges that would be deleterious to water quality. Sediment from zeolite or aggregate processing operations has some potential to enter storm water run off from the site area; however, storm water containment and settling ponds minimize this potential. Other potential materials on the site that could affect storm water quality include contained fuels and oils used for mobile equipment operation and general lubrication. An updated list of these materials and their locations are in Table 1.

2. B Inventory of Exposed Materials

EPA GENERAL PERMIT REQUIREMENTS
Inventory of Exposed Materials
5.1.3.1 Activities in the area.

A list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).

> *Conduct an inventory of materials that may be exposed to storm water at the site, and include a narrative description of:*

Significant materials that have been handled, treated, stored, or disposed in a manner to allow exposure to storm water between the time of three years prior to the date of permit issuance and the present;

Method(s) and location of onsite storage or disposal;

Materials management practices employed to minimize contact of these materials and with storm water runoff between the time of three years prior to the date of the issuance of the permit and the present'

Table 1 **MATERIAL INVENTORY** **2013**	Worksheet #3 Completed by: Audie Padilla Title: Operations Superintendent Updated: 8/18/15

Instructions: List all materials used, stored, or produced onsite. Assess and evaluate these materials for their potential to contribute pollutants to storm water runoff. Also complete Worksheet 3A if the material has been exposed during the last 3 years.

Material	**Purpose/Location**	**Quantity (Units)**			**Quantity Exposed in last 3 years**	**Likelihood of contact with storm water. If yes, describe reason**	**Past Significant Spill or Leak**	
		Used	**Produced**	**Stored**			**Yes**	**No**
1. Diesel Fuel	Fuel for mobile equipment/generators. Located within containment area E. of shop within zeolite processing facility.	Yes	No	Up to 12,000 gallons	None	No, contained in storage tanks and within secondary containment		X
2. Motor and Hydraulic Oils	Equipment Operation & Lubrication. Located within containment area E. of shop within zeolite processing facility.	Yes	No	Up to 1,000 gallons	"	No, kept in containment area in approved 550 gallon and 350 gallon bulk storage totes, and in approved 55 gal drums		X
3. Paint, solvents	Equipment Maintenance and Steel fabrication. Within shop and mill buildings.	Yes	No	Up to 50 Gallons	"	No, kept in approved sealed 1- 5 gal buckets until used		X
4. Used Oil	Recycled from Equipment Maintenance. Located within containment area E. of shop within zeolite processing facility.	No	Yes	Up to 11,000 gallons	"	No, kept in containment area in approved 400 gal bulk tank and transferred to a bulk storage tank of 10,276 capacity until collected and removed by recycle firm.		X

5. Fertilizers	Blending with zeolite products or reclamation purposes. Located in containment area within processing facility boundary.	Yes	No	Up to 10 tons	"	No, kept in bags on pallets in containment area or warehouse as needed.		X
6. Zeolite Stockpiles	All natural hydrated calcium – potassium aluminum silicates produced and saleable products. Located within zeolite processing facility boundary.	No	Yes	Up to 50,000 tons as needed	> than 500 tons	Within pit or containment area as processed and bagged for customers as needed,		X
7. Surfactants	Surface treatment of zeolite product to customer specification. Located within zeolite processing facility boundary.	Yes	No	Up to 20 drums	"	No, kept in vender supplied 55 gal drums until applied to zeolite product for bagging and sales to customers.		X
8. Aggregate Products	Untreated, Natural Construction and Highway aggregates. Located south and southwest of zeolite processing facility.	Yes	Yes	Up to 50,000 tons	> than 1000 tons as road surfacing materials	Saleable products stockpiled in containment area. Material used for road maintenance and construction subject to erosion.		X
9. Explosives	Blasting Media for Mining Operations. Located near zeolite mine.	Yes	No	Up to 30 tons	None	No. Stored in approved and inspected magazines.		X
10. Propane	Product drying and general utility purposes. Located in NE quadrant of zeolite processing facility.	Yes	No	Up to 12,000 gal	None	No. Gaseous material stored in pressured vessels.		X

11. Spare parts, machinery & materials	General repair and spare components. Located in and around zeolite processing facility, and in "boneyards"	N/A	N/A	Up to 50 tons	None	Yes, but in contained area.		X

EPA GENERAL PERMIT REQUIREMENTS
Inventory of Exposed
5.1.3.2 Pollutants.

A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity. The pollutant list must include all significant materials that have been handled, treated, stored, or disposed, and that have been exposed to stormwater in the 3 years prior to the date you prepare or amend your SWPPP.
Existing structural and nonstructural control measures to reduce pollutants in storm water runoff, including their locations; and any treatment of storm water runoff.

Reclaimed tailings impoundments, zeolite stockpiles and products at the processing site, and miscellaneous aggregate materials and spare parts and components are the most common materials exposed on the site. An inventory and record of exposed materials, listed in Table 2 will be kept on site. This inventory will be kept updated as new materials are brought onto the site or removed from the site.

All materials will be contained and disposed of in accordance with Best Management Practices (BMP) discussed in Section 3.

2. C Spills and Leaks

EPA GENERAL PERMIT REQUIREMENTS
Spills and Leaks
5.1.3.3 Spills and Leaks.

You must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s) that would be affected by such spills and leaks. You must document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the 3 years prior to the date you prepare or amend your SWPPP. Note: Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

EPA has defined "significant spills" to include releases within a 24-hour period for hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act and Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERLA). Reportable quantities are set amounts of substances in pounds, gallons, or other units and are listed in Appendix D. The National Response Center must be notified at (800) 424-8802 if there re any releases of the substances listed in Appendix D in excess of the reportable quantity. Releases are defined to include any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

Small spills of fuel oil, hydraulic oil, and motor oil have occurred in the vicinity of the maintenance shop and generator buildings on the site. All spills and leaks of materials that may impair the quality of storm water discharge will be reported. No significant spills or leaks that have occurred to date at the operation.

Table 2 **DESCRIPTION OF EXPOSED SIGNIFICANT MATERIAL**	Completed by: Audie Padilla Title: Operations Superintendent Date: 11/5/2025

Instructions: Based on your material inventory, describe the significant materials that were exposed to storm water during the past three years and/or are currently exposed. For the definition of "significant materials" see page 5 of this summary.

Description of Exposed Significant Material	**Period of Exposure**	**Quantity Exposed (units)**	**Location (as indicated on the site map)**	**Method of Storage or Disposal (e.g., pile, drum, tank)**	**Description of Material Management Practice (i.e., pile, covered, drum sealed)**
Motor and Hydraulic Oil	20 years	Up to 1,000 gal	Within containment area north of mill building	Bulk tote storage containers	Bulk tote storage containers sealed and stored in cement containment pad with 29505 gal Capacity.
Fuel - Diesel	20 years	Up to 12,000 gallons	Within containment area east of shop	Bulk storage tanks	Bulk storage tank within zeolite constructed concrete containment area. Capacity 16,000 gal.
Used Oil	10 years	Up to 11,000 gallons	Within containment area east of (400 gallon tote) and within containment area east of shop & generator buildings (10, 300 gallon tank)	Bulk storage tote and tank	Bulk storage tote and tank within concrete containment areas. Capacity 29,505 gal.
Used equipment, parts, metal components, spare drums	15 years	Misc. materials, several tons	In operations yard, north of yard in “boneyard”	Stored on pads or within “boneyards” within storm water containment areas	Materials, parts and machinery stored to prevent spillage, trash or leakage of materials or fluids that could degrade storm water
Zeolite ores and products	10 years	Up to 300 tons	In and around zeolite processing facility	Stored within storm water containment areas or covered facilities	Stored within storm water containment areas or covered facilities
Aggregate materials	10 years	Up to 500 tons	In and around zeolite processing facility	Stored within storm water containment areas	Stored within storm water containment areas

Table 3 LIST OF SIGNIFICANT SPILLS AND LEAKS	Completed by: Audie Padilla Title: Operations Superintendent Date:

Directions: **Record below all significant spills and significant leaks of toxic or hazardous pollutants that have occurred at the facility.**
None to date

Definitions: **Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities.**

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description				Response Procedure		Preventative Measure Taken
				Type of Material	Quantity	Source, if Known	Reason	Amount of Material Recovered	Material No longer Exposed to Storm Water (True/False)	

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description				Response Procedure		Preventative Measure Taken
				Type of Material	Quantity	Source, if Known	Reason	Amount of Material Recovered	Material No longer Exposed to Storm Water (True/False)	

2. D Sampling Data

EPA GENERAL PERMIT REQUIREMENTS
Sampling Data
4.2
Quarterly Visual Assessment of Stormwater Discharges.

Once each quarter for the entire permit term, you must collect a stormwater sample from each outfall (except as noted in Part 4.2.3) and conduct a visual assessment of each of these samples. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but should be collected in such a manner that the samples are representative of the stormwater discharge.

The visual assessment must be made:

Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;

On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and you must document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from your site; and

For storm events, on discharges that occur at least 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if you document that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period.

You must visually inspect the sample for the following water quality characteristics:

- *Color;*
- *Odor;*
- *Clarity;*
- *Floating solids;*
- *Settled solids;*
- *Suspended solids;*
- *Foam;*
- *Oil sheen; and*
- *Other obvious indicators of stormwater pollution.*

Storm water runoff from the plant site is contained and storm-water runoff that is diverted around the plant site. The sampling will be taken from the primary containment pond located west of the plant. Named as Z-5 containment pond on site map Plate 1, Containment Area E. Due to the semi arid climate sampling will be distributed to times when enough perception occurs that there is a runoff into our containment pond according to **4.1.3** of the General Permit.

4.2.2 Quarterly Visual Assessment Documentation.

You must document the results of your visual assessments and maintain this documentation onsite with your SWPPP as required in Part 5.4. You are not required to submit your visual assessment findings to EPA, unless specifically requested to do so. At a minimum, your documentation of the visual assessment must include:

- *Sample location(s)*
- *Sample collection date and time, and visual assessment date and time for each sample;*
- *Personnel collecting the sample and performing visual assessment, and their signatures;*
- *Nature of the discharge (i.e., runoff or snowmelt);*
- *Results of observations of the stormwater discharge;*
- *Probable sources of any observed stormwater contamination,*
- *If applicable, why it was not possible to take samples within the first 30 minutes.*

Any corrective action required as a result of a quarterly visual assessment must be performed consistent with Part 3 of this permit.

Storm water runoff from the plant site is contained and storm-water runoff that is diverted around the plant site. The sampling will be taken from the primary containment pond located west of the plant. Named as Z-5 containment pond on site map Plate 1, Containment Area E. Due to the semi arid climate sampling will be distributed to times when enough perception occurs that there is a runoff into our containment pond according to **4.1.3** of the General Permit.
Storm water sampling will be documented as required and filled within this SWPPP in Apendix E of this SWPPP.

2. E Risk Identification and Summary of Potential Pollutant Sources

EPA GENERAL PERMIT REQUIREMENTS
Risk Identification and Summary of Potential Pollutant Sources
Part IV.D.2.e

Include in your plan a narrative description of the potential pollutant sources and identify any pollutant of concern that may be generated by the following activities at your facility:

Loading and unloading operations
Outdoor storage activities
Outdoor manufacturing or processing activities
Onsite waste disposal practices

Raw Materials: The mining, crushing and stockpiling of rock material is done outdoors. Crushing operations are a potential source of dust, and only pose a potential source of silt to storm water discharge. Airborne dust is controlled by dust abatement and regulated by air quality permits. Materials presently produced during crushing are sold and removed from the site or stockpiled. Certain particle sizes of

zeolites not readily saleable are placed in an impoundment for future recovery and sales or capping and reclamation as required by Ground Water Permit DP # 314 with the New Mexico Environment Department (NMED), or as required by the NM Mining Act of 1993 and St. Cloud's approved Close Out Plan.

Fuels: Loading and unloading operations represent the greatest risk of spills of diesel fuels and oils. Fuel oil and other oils are stored and contained outdoors within concrete containment areas. Used oil is collected in a portable 400 gallon tote, and within a 10,300 gallon holding tank within the containment area, and pumped out and removed by companies qualified and licensed to engage in waste oil disposal, treatment, and transportation.

Waste Products: Sewage from on site toilet and shower facilities are treated by a septic tank and leach field system permitted through the NMED. The leach field is isolated from site runoff. Trash such as waste paper from the office and empty boxes from the shop and warehouse are collected and hauled off-site to the approved Sierra County Landfill located near Winston, NM.

Evaluations of storm water flow direction and an estimate of materials likely to be present in storm water discharge at the site were conducted. Results from this evaluation indicated that there is minimal threat of pollutants entering storm water discharge, due to the containment of storm water on site, and due to the nature of the operation, and lack of materials that have the potential to degrade storm water.

3. MEASURES AND CONTROLS

Measures and controls correspond to the pollution sources identified in Section 2 of this document. The Best Management Practices outlined below will be used as standard guidelines for preventing pollution of storm water runoff.

3. A Good Housekeeping

EPA GENERAL PERMIT REQUIREMENTS

2.1.2.2 Good Housekeeping

Good housekeeping requires the maintenance of areas which may contribute pollutants to storm water discharges in a clean, orderly manner.

Good housekeeping consists of keeping the facility clean and orderly. This is a source control Best Management Practice, which involves removing empty containers off site or to a safe disposal site, and moving waste material to a storage or disposal site.

3. A.1 Method of Onsite Storage and Disposal

Fuels: Methods of proper handling of fuels on the site include:

Minimization of the area where fuels are used.
Removal of empty containers.
Proper disposal of fuel containers.
Concrete containment around fuel tanks.
Regular inspection of fuel facilities and maintenance of piping and tanks.
Employee training in safe handling and inspection procedures.

Preventative and response plans for fuel and oil tank leaks will be implemented. Reports will be recorded on this plan under Table 3.

Ores and processed rock: Efforts will be made to minimize dust and accumulation of fine grained materials around the processing facility.

Storm water disposal: Storm water collected onsite will be used for dust abatement or left in settling ponds for evaporation.

3. B Preventative Maintenance

EPA GENERAL PERMIT REQUIREMENTS
Preventative Maintenance
Part IV.D.3.b

The preventative maintenance program must include:

Timely inspection and maintenance of storm water management devices (e.g., catchment basins, berms); inspection and testing of facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters; and proper maintenance of facility equipment and systems.

Materials: The amount of exposed materials on the site will be minimized in accordance with good housekeeping policies.

Storm water containments: Settling ponds, diversion structures and impoundments will be inspected periodically, and will be cleaned out and otherwise maintained as necessary. Inspections will include: structural stability of ponds, capacity of ponds, and leakage. Ponds and structures may be expanded from time to time as may be appropriate to maintain containments and such work shall be noted on appropriate reports.

3. C Spill Prevention and Response Procedures

EPA GENERAL PERMIT REQUIREMENTS
2.1.2.4 Spill Prevention and Response Procedures.

•Procedures for plainly labeling containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;

•Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;

•Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of your stormwater pollution prevention team (see Part 5.1.1); and

•Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as you have knowledge of the discharge. State or local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

There is one 12,117-gallon and two 500-gallons above ground fuel storage tanks near the maintenance building area. (See Plate E). A Spill Prevention Control and Countermeasure Plan has been developed for the site. Good housekeeping procedures will be used to prevent fuel spills in the use and storage areas. Care is used during fueling and maintenance of machinery to avoid spillage. In the event of a leak or minor spill, the contaminated area is treated with absorbent, excavated, removed form the area, and contained. Any affected soils will be remediated in accordance with all applicable state and federal regulations. Within the zeolite facility, any spills of hydrocarbons would be adsorbed by zeolite material, which would then be routed through the dryer. Hydrocarbons in the zeolite would volatilize and act as fuel in the dryer system.

3. D Inspections

EPA GENERAL PERMIT REQUIREMENTS
Visual Inspections
4.1.1 Routine Facility Inspection Procedures.

Conduct routine facility inspections of all areas of the facility where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with the effluent limits contained in this permit. Routine facility inspections must be conducted at least quarterly (i.e., once each calendar quarter) although in many instances, more frequent inspection (e.g., monthly) may be appropriate for some types of equipment, processes, and control measures or areas of the facility with significant activities and materials exposed to stormwater. Perform these inspections during periods when the facility is in operation. You must specify the relevant inspection schedules in your SWPPP document as required in Part 5.1.5. These routine inspections must be performed by qualified personnel (for definition see Appendix A) with at least one member of your stormwater pollution prevention team participating. At least once each calendar year, the routine facility inspection must be conducted during a period when a stormwater discharge is occurring.
Track results of inspections to ensure that appropriate actions are taken; and

Maintain records of all inspections.

Routine visual inspections are not meant to be comprehensive evaluations of the entire Storm Water Pollution Prevention Plan. The visual inspection is simply a way to confirm that the measures chosen are in place and working and should periodically take place during storm events. Inspections of all potential pollution sources, storm-water diversion structures, and containments will be done at least twice a year by one of the prevention team members. A record of inspection findings will be kept on the forms in Appendix E of this SWPPP. Actions, if any need be taken, will be recorded, and the Pollution Prevention Plan will be revised in order to accommodate the response and actions taken. Visual observation of discharge will be noted on the site map. Any site mitigation resulting from the visual inspection will also be noted on the map.

3. E Employee Training

EPA GENERAL PERMIT REQUIREMENTS
Employee Training
Part IV.D.3.e

Employee training programs must inform personnel at all levels of responsibility of the components of this pollution prevention plan; including how and why tasks are to be implemented. Topics will include:

Spill prevention and response
Good housekeeping
Material management practices

Safety and Environmental Awareness training of employees is held once a week and includes the following topics:

1. Employee safety and response
2. Review and familiarization of the Pollution Prevention Plan.
3. Housekeeping.
4. Fuel leak and spillage prevention and clean-up.
5. Components of the storm water system.
6. Maintenance of the storm water system.

3. F Recordkeeping and Internal Reporting Procedures

Recordkeeping and reporting will include plan changes and updates, inspections, training, spill response procedures, corrective action, and maintenance. An updated copy of this plan, complete with records of all activities and information related to the Pollution Prevention Plan, will be kept at the facility office.

3. G Non-Storm Water Discharges

The site is isolated from non-storm flows by diversion dikes. No sampling of this flow has been done, although ground water is routinely sampled and reported to the NMED as required by permits. Non-storm discharge does not occur from the site. If non-storm water discharges were to occur on the site, then a water sample will be collected and analyzed, so an assessment could be made and reported. Reports of non-storm water discharge will be recorded on the appropriate form provided in Appendix F.

3. H Sediment and Erosion Control

EPA GENERAL PERMIT REQUIREMENTS
Sediment and Erosion Control
Part IV.D.3.h

Identify areas which, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.

All areas of significant water flow within the site are well compacted, and do not present a high potential for erosion. If erosion of a diversion channel occurs, then erosion control devices will be installed according to the EPA recommended guidelines provided in Appendix G. This may include tasks such as lining channels with natural materials to reduce the channel flow.

The one exception to this is the diversion channel that was constructed north of the No. Tailing Impoundment, this has been converted to a zeolite storage facility. This channel was constructed in 1982, when the No. Tailings Impoundment was constructed, as required by the NM State Engineer for dam safety purposes. The diversion is cut through a hillside to prevent off site water from flowing into what was at that time a tailing impoundment, and which is now a zeolite storage facility. This area is in its final configuration and is not proposed to be modified in the approved Closure and Reclamation Plans for the site. While some erosion of the cut slope took place in early years after construction, the slope is currently weathered and has a natural armoring that minimizes erosion.

3.I Management of Runoff

EPA GENERAL PERMIT REQUIREMENTS
Management of Runoff
Part IV.D.3.i

> *The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those which control the source of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharge from the site. The plan shall provide that measures determined to be reasonable and appropriate shall be implemented and maintained. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity shall be considered when determining reasonable and appropriate measures. Appropriate measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source).*

Storm water from the site is collected in settling ponds and should not enter into storm water discharge areas off the site premises. If storm water runoff from the site occurs, then a discharge report will be made and the diversion system will be repaired and/or improved.

Updates on BMP evaluations will be recorded on the forms provided in Appendix H. This includes source identification, BMP identification and BMP implementation. Employee training records are maintained separately in a Safety and Environmental Awareness notebook.

4. COMPREHENSIVE SITE COMPLIANCE EVALUATION

EPA GENERAL PERMIT REQUIREMENTS
Comprehensive Site Compliance Evaluation
Part IV.D.4

Qualified personnel must conduct site compliance evaluations at appropriate intervals specified in the plan at least once a year (at least once in three years for inactive mining sites). As part of your compliance evaluations you are required to:

Inspect storm water drainage areas for evidence of pollutants entering the drainage system;

Evaluate the effectiveness of measures to reduce pollutant loadings and whether additional measures are needed;

Observe structural measures, sediment controls, and other storm water BMPs to ensure proper operation;

Inspect any equipment needed to implement the plan, such as spill response equipment;

Revise the plan as needed within two weeks of inspection (potential pollutant source description and description of measures and controls);

Implement any necessary changes in a timely manner, but at least within 12 weeks of the inspection;

The pollution prevention team must implement this plan and conduct annual inspection to:

a. Verify that potential pollution sources are accurately described and accounted for.

b. Update the site map, adding new buildings, activities, storage locations, or other changes that might influence storm-water runoff.

c. Verify procedures for revision of plan and implementation of corrective action has been taken.

d. Describe potential pollution sources found during inspection.

6.2 Required Monitoring.

This permit includes five types of required analytical monitoring, one or more of which may apply to your discharge:

1. Quarterly benchmark monitoring (see Part 6.2.1)
2. Annual effluent limitations guidelines monitoring (see Part 6.2.2);
3. State- or Tribal-specific monitoring (see Part 6.2.3);
4. Impaired waters monitoring (see Part 6.2.4); and
5. Other monitoring as required by EPA (see Part 6.2.5).

When more than one type of monitoring for the same parameter at the same outfall applies (e.g., total suspended solids once per year for an effluent limit and once per quarter for benchmark monitoring at a given outfall), you may use a single sample to satisfy both monitoring requirements (i.e., one sample satisfying both the annual effluent limit sample and one of the 4 quarterly benchmark monitoring samples).
All required monitoring must be conducted in accordance with the procedures described in

B.10 Monitoring and Records.

A. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

B. You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of EPA at any time.

C. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements;

2. The individual(s) who performed the sampling or measurements;

3. The date(s) analyses were performed

4. The individual(s) who performed the analyses;

5. The analytical techniques or methods used; and

6. The results of such analyses.

D. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

E. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

6.2.1 Benchmark Monitoring.

This permit stipulates pollutant benchmark concentrations that may be applicable to your discharge. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations in Part 2.

6.2.1.1 Applicability of Benchmark Monitoring.

You must monitor for any benchmark parameters specified for the industrial sector(s), both primary industrial activity and any co-located industrial activities, applicable to your discharge. Your industry-specific benchmark concentrations are listed in the sector-specific sections of Part 8. If your facility is in one of the industrial sectors subject to benchmark concentrations that are hardness-dependent, you are required to submit to EPA with your first benchmark report a hardness value, established consistent with the procedures in Appendix J, which is representative of your receiving water. Samples must be analyzed consistent with 40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which you are required to sample.

6.2.1.2 Benchmark Monitoring Schedule.

Benchmark monitoring must be conducted quarterly, as identified in Part 6.1.7, for your first 4 full quarters of permit coverage commencing no earlier than April 1, 2009. Facilities in climates with irregular stormwater runoff, as described in Part 6.1.6, may modify this quarterly schedule provided that this revised schedule is reported to EPA when the first benchmark sample is collected and reported, and that this revised schedule is kept with the facility's SWPPP as specified in Part 5.4.

Data not exceeding benchmarks: After collection of 4 quarterly samples, if the average of the 4 monitoring values for any parameter does not exceed the benchmark, you have fulfilled your monitoring requirements for that parameter for the permit

term. For averaging purposes, use a value of zero for any individual sample parameter, analyzed using procedures consistent with Part 6.2.1.1, which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

Data exceeding benchmarks: After collection of 4 quarterly samples, if the average of the 4 monitoring values for any parameter exceeds the benchmark, you must, in accordance with Part 3.2, review the selection, design, installation, and implementation of your control measures to determine if modifications are necessary to meet the effluent limits in this permit, and either:

Make the necessary modifications and continue quarterly monitoring until you have completed 4 additional quarters of monitoring for which the average does not exceed the benchmark; or

Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limits or are necessary to meet the water-quality-based effluent limitations in Parts 2 of this permit, in which case you must continue monitoring once per year. You must also document your rationale for concluding that no further pollutant reductions are achievable, and retain all records related to this documentation with your SWPPP. You must also notify EPA of this determination in your next benchmark monitoring report.

In accordance with Part 3.2, you must review your control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full 4 quarters of monitoring data, if an exceedance of the 4 quarter average is mathematically certain. If after modifying your control measures and conducting 4 additional quarters of monitoring, your average still exceeds the benchmark (or if an exceedance of the benchmark by the 4 quarter average is mathematically certain prior to conducting the full 4 additional quarters of monitoring), you must again review your control measures and take one of the two actions above.

***Natural background pollutant levels*:** Following the first 4 quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 quarters of data, see above), if the average concentration of a pollutant exceeds a benchmark value, and you determine that exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background, you are not required to perform corrective action or additional benchmark monitoring provided that:

The average concentration of your benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background;

You document and maintain with your SWPPP, as required in Part 5.4, your supporting rationale for concluding that benchmark exceedances are in fact

attributable solely to natural background pollutant levels.

You must include in your supporting rationale any data previously collected by you or others (including literature studies) that describe the levels of natural background pollutants in your stormwater discharge; and You notify EPA on your final quarterly benchmark monitoring report that the benchmark exceedances are attributable solely to natural background pollutant levels.

Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources which are not naturally occurring.

6.2.2 Effluent Limitations Monitoring.

6.2.2.1 Monitoring Based on Effluent Limitations Guidelines. Table 6-1 identifies the stormwater discharges subject to effluent limitation guidelines that are authorized for coverage under this permit. Beginning in the first full quarter following April 1, 2009 or your date of discharge authorization, whichever date comes later, you must monitor once per year at each outfall containing the discharges identified in Table 6-1 for the parameters specified in the sector-specific section of Part 8.

Table 6-1. Required Monitoring for Effluent Limits Based on Effluent Limitations Guidelines

Regulated Activity	Effluent Limit	Monitoring Frequency	Sample Type
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	See Part 8.A.7	1/year	Grab
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	See Part 8.C.4	1/year	Grab
Runoff from asphalt emulsion facilities	See Part 8.D.4	1/year	Grab
Runoff from material storage piles at cement manufacturing facilities	See Part 8.E.5	1/year	Grab
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	See Part 8.J.9	1/year	Grab
Runoff from hazardous waste landfills	See Part 8.K.6	1/year	Grab
Runoff from non-hazardous waste landfills	See Part 8.L.10	/year	rab

Runoff from coal storage piles at steam electric generating facilities	S See Part 8.O.8	1 1/year	G Grab

6.2.2.2 Substantially Identical Outfalls.

You must monitor each outfall discharging runoff from any regulated activity identified in Table 6-1. The substantially identical outfall monitoring provisions are not available for numeric effluent limits monitoring.

6.3 Follow-up Actions if Discharge Exceeds Numeric Effluent Limit.

You must conduct follow-up monitoring within 30 calendar days (or during the next qualifying runoff event, should none occur within 30 days) of implementing corrective action(s) taken pursuant to Part 3 in response to an exceedance of a numeric effluent limit contained in this permit. See Part 9 for specific monitoring requirements applicable to individual States or Tribes. Monitoring must be performed for any pollutant(s) that exceeds the effluent limit. If this follow-up monitoring exceeds the applicable effluent limitation, you must comply with both Parts 6.3.1 and 6.3.2.

6.3.1 Submit an Exceedance Report.

You must submit an Exceedance Report consistent with Part 7.3.

6.3.2 Continue to Monitor.

You must continue to monitor, at least quarterly, until your discharge is in compliance with the effluent limit or until EPA waives the requirement for additional monitoring.

7. Reporting and Recordkeeping

7.1 Reporting Monitoring Data to EPA.

All monitoring data collected pursuant to Parts 6.2 and 6.3 must be submitted to EPA using EPA's online eNOI system (www.epa.gov/npdes/eNOI) no later than 30 days (email date or postmark date) after you have received your complete laboratory results for all monitored outfalls for the reporting period. If you cannot access eNOI, paper reporting forms must be submitted by the same deadline to the appropriate address identified in Part 7.6.1. If you are using paper reporting forms, EPA strongly recommends that you use the MSGP discharge monitoring report (MDMR) available at www.epa.gov/npdes/stormwater/msgp. See Part 9 for specific reporting requirements applicable to individual States or Tribes.

For benchmark monitoring, note that you are required to submit sampling results to EPA no later than 30 days after receiving laboratory results for each quarter that you are required to collect benchmark samples, in accordance with Part 6.2.1.2. If you collect multiple samples in a single quarter (e.g., due to adverse weather conditions, climates with irregular stormwater runoff, or areas subject to snow), you are required to submit all sampling results to EPA within 30 days of receiving the laboratory results.

7.2 Annual Report

You must submit an annual report to EPA that includes the findings from your Part 4.3 comprehensive site inspection and any corrective action documentation as required in Part 3.4. If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s). In addition to the information required in Parts 3.4 (Corrective Action Report) and 4.3.2 (Comprehensive Site Inspection Documentation), you must include the following information with your annual report:

- Facility name
- NPDES permit tracking number
- Facility physical address
- Contact person name, title, and phone number

EPA strongly recommends that you submit this report using the Annual Reporting Form provided as Appendix I. You must submit the annual report to EPA within 45 days (postmark date) after conducting the comprehensive site inspection to the address identified in Part 7.6.1.

7.3 Exceedance Report for Numeric Effluent Limits

If follow-up monitoring pursuant to Part 6.3 exceeds a numeric effluent limit, you must submit an Exceedance Report to EPA no later than 30 days after you have received your lab results. Your report must include the following:

NPDES permit tracking number;

Facility name, physical address and location;

Name of receiving water;

Monitoring data from this and the preceding monitoring event(s);

An explanation of the situation; what you have done and intend to do (should your corrective actions not yet be complete) to correct the violation; and
An appropriate contact name and phone number.

7.5 Recordkeeping.

You must retain copies of your SWPPP (including any modifications made during the term of this permit), additional documentation requirements pursuant to Part 5.4 (including documentation related to corrective actions taken pursuant to Part 3), all reports and certifications required by this permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit, for a period of at least 3 years from the date that your coverage under this permit expires or is terminated.

7.6 Addresses for Reports

7.6.2.6 Region 6: Arkansas, Louisiana, Oklahoma, Texas, and New Mexico (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands).

U.S. EPA Region 6
Stormwater Coordinator
Compliance Assurance and Enforcement Division (6EN-WC)
EPA SW MSGP
P.O. Box 50625
Dallas, TX 75205

Appendix A
Glossary of Terms

Appendix B

Notice of Intent

Appendix C

Summary of Environmental Permits

Appendix D

EPA Recommended Design Criteria, Materials, and Construction Specifications for Sediment and Erosion Control Structures

Appendix E

Inspection and Maintenance Report Forms

Appendix F

Best Management Practice Forms

Appendix G

Non-Storm Water Discharge Forms

Appendix I

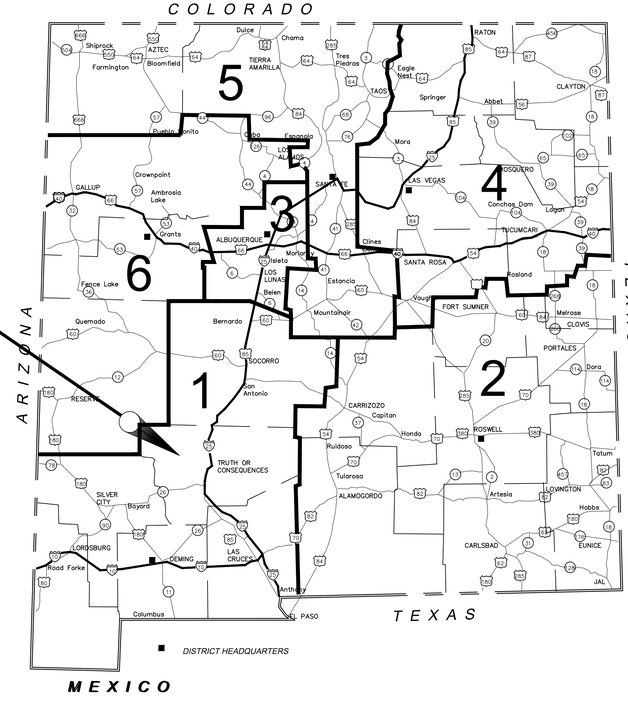
Miscellaneous Forms and NOC

Appendix H

Monitoring Benchmark, Effluent Limit, and Annual Report Forms

ST. CLOUD MINING

SEDIMENT PONDS DESIGN AND CALCULATIONS
SIERRA COUNTY



ST. CLOUD MINING COMPANY

T12S, R8W, SEC. 4
SIERRA COUNTY
NEW MEXICO

DRAWING INDEX

Thompson Engineering Consultants, Inc.
P. O. BOX 65760
ALBUQUERQUE, NM 87193
PHONE: (505) 271-2199
FAX: (505) 830-9426
tecnm@yahoo.com

NO.	REVISION	BY	DATE

PROJECT:
DRAWN BY: DEM
DATE:
CHECKED BY:
HORIZ. SCALE:
APPROVED BY:
VERT. SCALE:
FILE:

NEW MEXICO 9677 LICENSED PROFESSIONAL ENGINEER
9-14-20

ST. CLOUD MINING
DRAINAGE IMPROVEMENTS
SIERRA COUNTY

TITLE

CITY/COUNTY REVIEW

DEPARTMENT	SIGN-OFF	DATE
WASTEWATER MGMT. DIV.		
WATER SERVICES		
SUBDIVISION ENG.		
STREETS		
TRAFFIC		

FOR CITY/COUNTY USE ONLY

DRAWING NO.

1 OF 7

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT CONSTRUCTION PLANS, AND THE "NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "AND DETAILS, AS PREPARED BY THE NEW MEXICO CHAPTER, AMERICAN PUBLIC WORKS ASSOCIATION, LATEST EDITION, IN THAT ORDER OF PRECEDENCE AT THE TIME OF CONSTRUCTION BID.

2. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL JURISDICTIONAL AUTHORITIES PRIOR TO THE START OF CONSTRUCTION.

3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY, HEALTH, AND ENVIRONMENTAL PROTECTION.

4. UNLESS OTHERWISE NOTED, ALL ROADWAY STATIONING IS ALONG THE CENTERLINE OF THE ROADWAY RIGHT-OF-WAY.

5. THE OWNER SHALL BE RESPONSIBLE FOR DETERMINING, IN ADVANCE OF HIS/HER CONSTRUCTION OPERATIONS, IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC., ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION IS EVIDENT, THE OWNER SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COSTS ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS ON THE CONSTRUCTION DOCUMENTS, ARE SHOWN AS APPROXIMATE AND IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION, AND COMPLETENESS OF THIS INFORMATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHOULD BE VERIFIED, BY ANY MEANS NECESSARY, PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY SSCAFCA IMMEDIATELY.

7. THE OWNER SHALL CONFINE HIS WORK TO WITHIN THE CONSTRUCTION LIMITS TO PRESERVE EXISTING VEGETATION, LANDSCAPING, AND PRIVATE PROPERTY. APPROVAL OF THESE PLANS DOES NOT GIVE OR IMPLY ANY PERMISSION TO TRESPASS OR WORK ON PRIVATE PROPERTY. PERMISSION MUST BE GRANTED IN WRITING BY THE OWNER OF THAT PROPERTY.

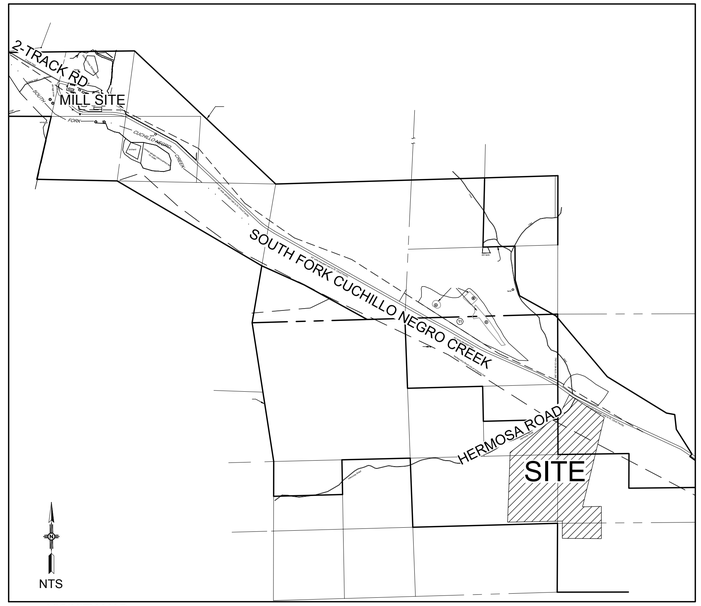
8. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO THE START OF CONSTRUCTION.

9. THE OWNER SHALL PREPARE A SWPPP PRIOR TO CONSTRUCTION.

10. THE EMBANKMENT FOUNDATION OF ALL PONDS SHALL BE CLEARED OF ALL VEGETATIVE MATERIAL, ALL SURFACES SHALL BE SLOPED TO NO STEEPER THAN 1 HORIZONTAL : 1 VERTICAL, AND THE ENTIRE FOUNDATION AREA SHALL BE SCARIFIED.

11. ALL FILL MATERIAL FOR THE PONDS SHALL BE FREE OF VEGETATIVE MATTER AND FROZEN SOIL.

12. ALL PLANS AND SPECIFICATIONS ARE IN ACCORDANCE WITH NMAC 19.10



VICINITY MAP

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FAX: (505) 830-9426
P. O. BOX 65760
ALBUQUERQUE, NM 87193

NO.	REVISION	BY	DATE

PROJECT:
DRAWN BY: DEM
DATE:
CHECKED BY:
HORIZ. SCALE:
APPROVED BY:
VERT. SCALE:
FILE:

NEW MEXICO 9677 REGISTERED PROFESSIONAL ENGINEER
9-14-06

ST. CLOUD MINING
DRAINAGE IMPROVEMENTS
SIERRA COUNTY

GENERAL NOTES & VICINITY MAP

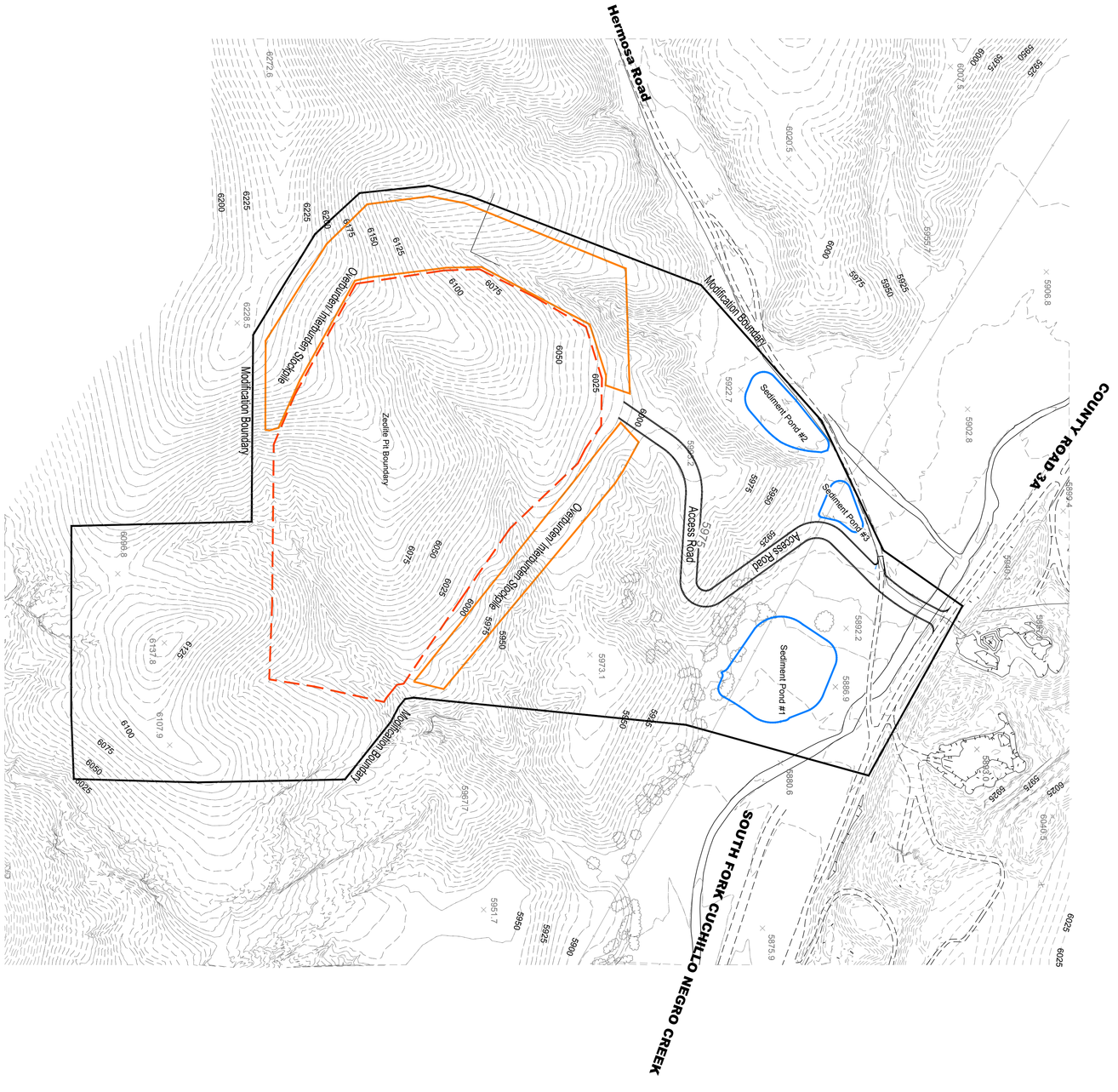
CITY/COUNTY REVIEW

DEPARTMENT	SIGN-OFF	DATE
WASTEWATER MGMT. DIV.		
WATER SERVICES		
SUBDIVISION ENG.		
STREETS		
TRAFFIC		

FOR CITY/COUNTY USE ONLY

DRAWING NO.

2 OF 7



SCALE: 1"=200'

200 100 0 100 200

N

CITY/COUNTY REVIEW		
DEPARTMENT	SIGN-OFF	DATE
WASTEWATER MGMT. DIV.		
WATER SERVICES		
SUBDIVISION ENG.		
STREETS		
TRAFFIC		
FOR CITY/COUNTY USE ONLY		

DRAWING NO. 3 OF 7

ST. CLOUD MINING
DRAINAGE IMPROVEMENTS
SIERRA COUNTY

OVERALL MINING PLAN

NO.	REVISION	BY	DATE

PROJECT:	DRAWN BY: DEM
DATE:	CHECKED BY:
HORIZ. SCALE:	APPROVED BY:
VERT. SCALE:	FILE:

Thompson Engineering Consultants, Inc.
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SEDIMENT POND 3

50 FT WIDE ACCESS ROAD

SOUTH FORK CUCHILLO NEGRO CREEK

SEDIMENT POND 1
SURFACE AREA = 2.13 AC
25-YR, 24-HR VOL = 100,697 CF
25-YR WSEL = 5884.26

5:1 SLOPE MIN.

10' WIDE BERM MIN.

16' WIDE EMERGENCY SPILLWAY WITH COBBLES OVER NON-WOVEN GEOTEXTILE
Q_{25} = 460 CFS

5900 5895 5890 5885 5925 5975 5950

5886 5885 5884 5883

30 15 0 15

SCALE: 1"=30'

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tecnm@yahoo.com

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DRAWN BY: DEM
DATE:
CHECKED BY:
HORIZ. SCALE:
APPROVED BY:
VERT. SCALE:
FILE:

NEW MEXICO 9677 REGISTERED PROFESSIONAL ENGINEER
9-14-20

ST. CLOUD MINING
DRAINAGE IMPROVEMENTS
SIERRA COUNTY

POND A GRADING PLAN

CITY/COUNTY REVIEW

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WATER SERVICES		
SUBDIVISION ENG.		
STREETS		
TRAFFIC		

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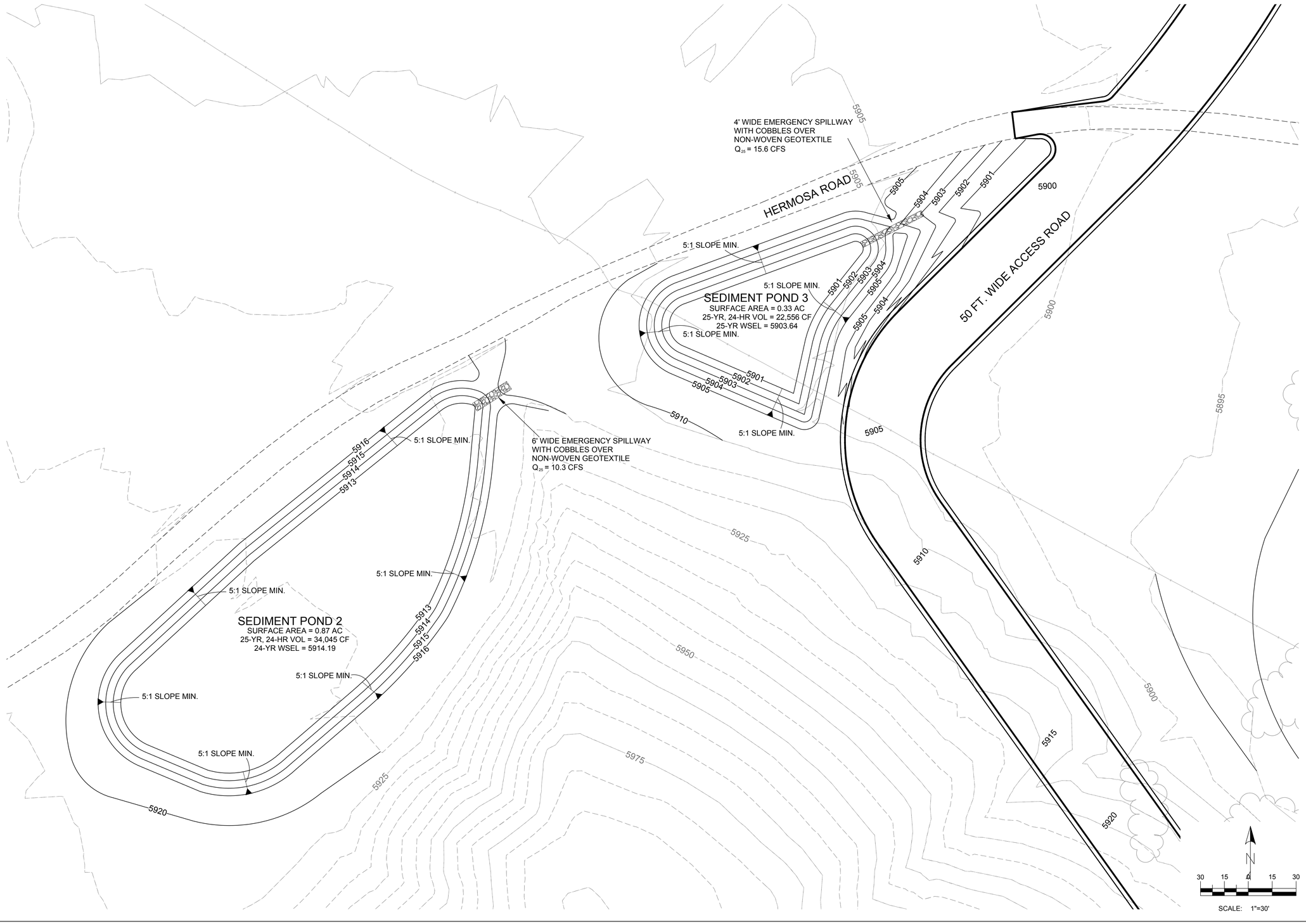

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ST. CLOUD MINING
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SIERRA COUNTY

POND B AND POND C
GRADING PLAN

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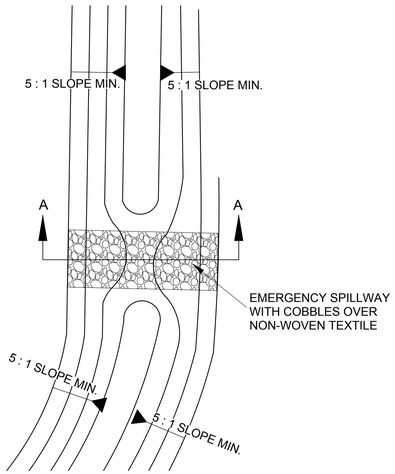
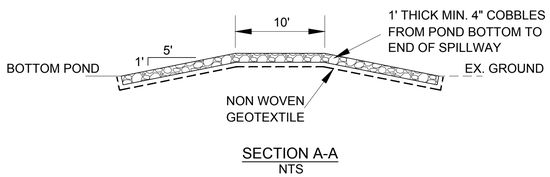
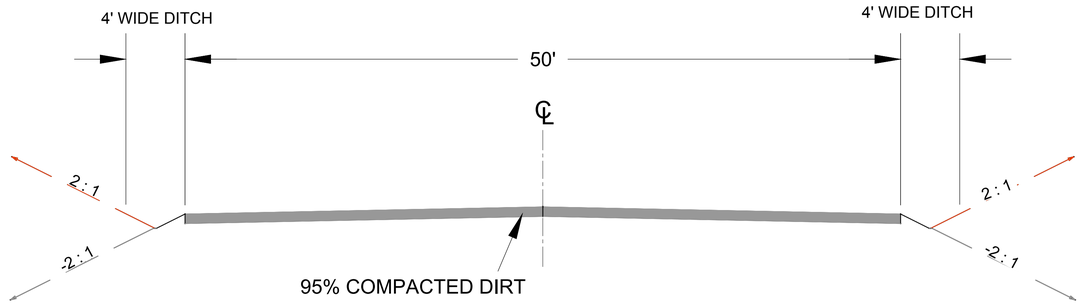


PLAN VIEW
NTS



SECTION A-A
NTS

EMERGENCY SPILLWAY
NTS



ACCESS ROAD TYPICAL SECTION
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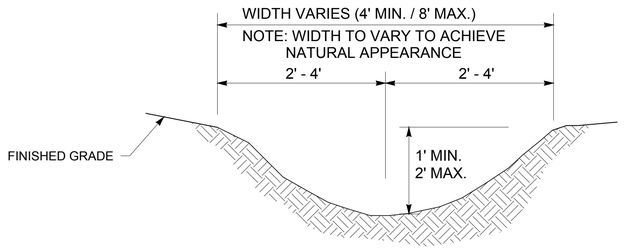

TYPICAL EARTHEN SWALE DETAIL
NTS

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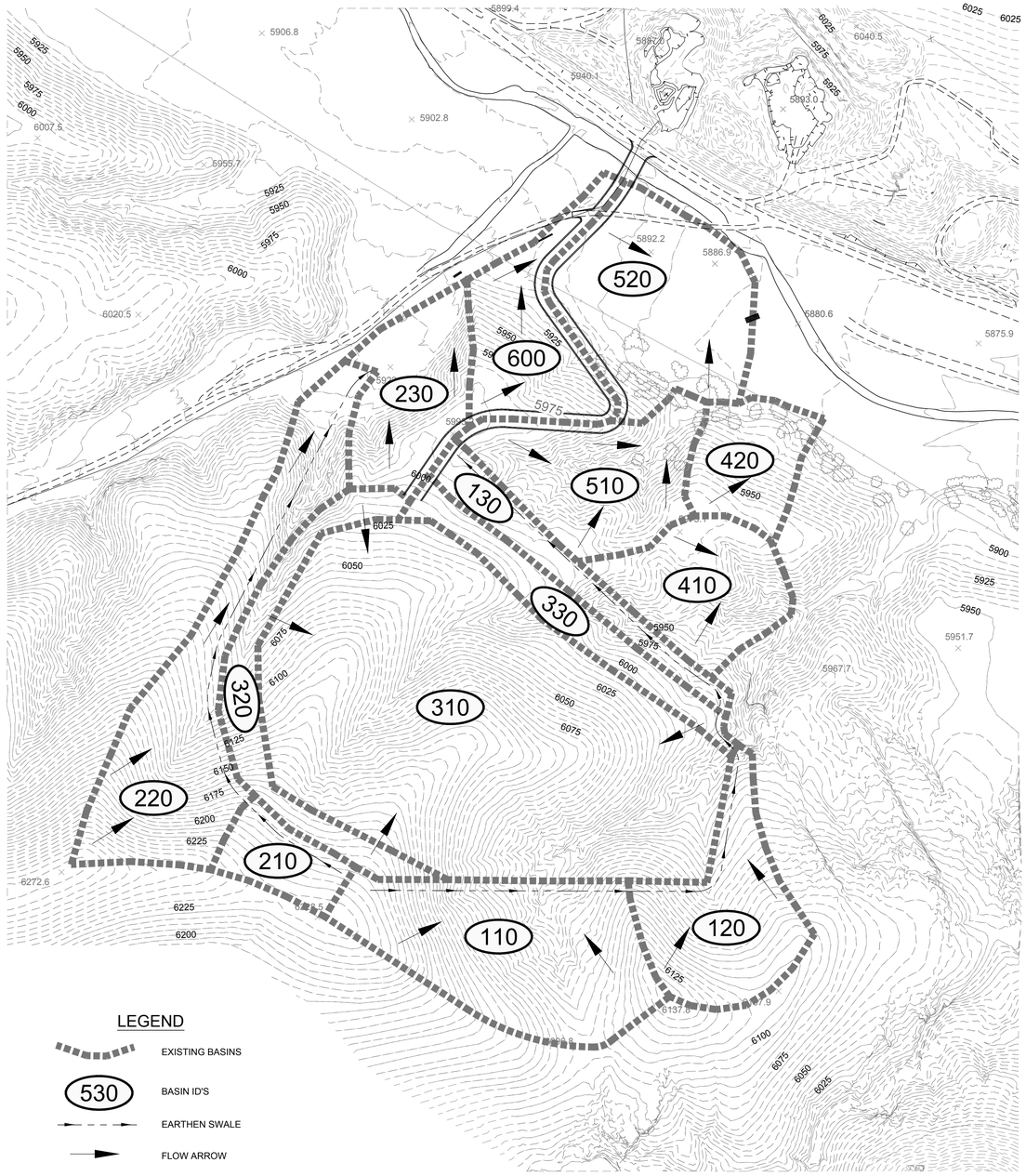

DRAINAGE AND SEDIMENT ANALYSIS:

THE NEW MINING AREA IS LOCATED IN SIERRA COUNTY JUST SOUTH OF WINSTON. THE NEW MINING AREA IS LOCATED SOUTH OF THE EXISTING MINING AREA SOUTH OF COUNTY ROAD 3A. JUST SOUTH OF COUNTY ROAD 3A AND NORTH OF THE NEW MINING AREA IS THE SOUTH FORK OF CUCHILLO CREEK, WHICH IS AN EPHEMERAL STREAM.

THE DRAINAGE AND SEDIMENT ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE NMDOT DRAINAGE DESIGN MANUAL, JULY 2018. ACCORDING TO FIGURE 401-1 FOR RURAL WATERSHEDS, SINCE THE TOTAL DRAINAGE AREA IS LESS THAN 160 ACRES, THE RATIONAL METHOD (Q=CiA) WAS USED TO CALCULATE THE PEAK RUNOFF AND THE RUNOFF VOLUME FOR THE DRAINAGE AREA. SEDIMENT BULKING WAS DETERMINED FOLLOWING SECTION 402.11. ACCORDING TO NMAC 19.10.5.508 THE DRAINAGE AND SEDIMENT PONDS AND DRAINAGE IMPROVEMENTS SHOULD BE DESIGNED FOR THE 25-YEAR, 24-HOUR STORM EVENT.

THE MINING AREA AND OFFSITE AREAS WAS DIVIDED INTO 14 DRAINAGE BASINS. THE 100 BASINS INCLUDE OFFSITE BASINS SOUTHEAST OF THE MINING PIT AND PART OF THE OVERBURDEN AREA NORTH OF THE PIT. RUNOFF FROM THE 100 BASINS WILL BE CONVEYED IN A SWALE AND EVENTUALLY DRAIN TO SEDIMENT POND NO. 1 IN BASIN 520. THE 200 BASINS INCLUDE OFFSITE BASINS SOUTHWEST OF THE PIT AND PART OF THE OVERBURDEN AREA WEST OF THE PIT. RUNOFF FROM THE 200 BASINS WILL BE CARRIED IN A SWALE TO SEDIMENT POND NO. 2 LOCATED IN BASIN 230. THE 300 BASINS INCLUDE THE PIT AREA AND THE PORTION OF THE OVERBURDEN AREAS THAT WILL DRAIN INTO THE PIT. RUNOFF FROM THE 300 BASINS WILL DRAIN TO THE PIT AND WILL BE CONTAINED IN THE PIT. THE 400 BASINS INCLUDE AREAS NORTH OF THE PIT THAT DRAIN NORTH TO THE EPHEMERAL ARROYO. THE 500 BASINS ARE NORTH OF THE PIT AND INCLUDES HALF OF THE ACCESS ROAD. RUNOFF FROM THE 500 BASINS WILL BE CONTAINED IN A SWALE AND/OR DRAIN THROUGH BASIN 510 IN A SMALL ARROYO TO THE SEDIMENT POND NO. 1 IN BASIN 520. AND BASIN 600 IS NORTHWEST OF THE PIT AND INCLUDES THE OTHER HALF OR THE ACCESS ROAD. RUNOFF FROM BASIN 600 WILL BE CARRIED IN A ROADSIDE DITCH TO SEDIMENT POND NO. 3 WITHIN THE BASIN.

FIRST, THE RATIONAL COEFFICIENT (C) FOR THE BASINS IS DETERMINED. AFTER DELINEATING THE DRAINAGE BASINS, THE TIME OF CONCENTRATION FOR EACH BASIN IS COMPUTED USING THE KIRPICH EQUATION. SINCE THE BASINS HAVE A SHORT FLOW PATH, THE TIME OF CONCENTRATION FOR EACH BASIN IS LESS THAN 10 MINUTES. THEREFORE, THE MINIMUM TIME OF CONCENTRATION OF 10 MINUTES IS USED TO CALCULATE THE STORM INTENSITY. NEXT, THE RAINFALL INFORMATION FOR THE SITE WAS OBTAINED USING THE NOAA PRECIPITATION FREQUENCY DATA SERVER. THE 25-YEAR, 1-HOUR PRECIPITATION IS 1.73 INCHES. THE 25-YEAR, 24-HOUR PRECIPITATION IS 3.03 INCHES. THE SOIL TYPES AND HYDROLOGIC SOIL GROUPS (HSG) IN THE MINING AREA ARE DETERMINED FROM THE NRCS WEB SOIL SURVEY. THERE ARE FOUR SOILS AT THE SITE: GOLDUST-PENA (HSG B), LUZENA- ROCK OUTCROP (HSG D), REDBANK-TORRIFLUVENTS (HSG B), AND ROCK OUTCROP-LUZENA (HSG D). DETERMINE THE RATIONAL COEFFICIENT (C) FROM THE HSG FOR EACH SOIL AND THE ESTIMATED COVER PERCENTAGE OF 30% AT A 25-YEAR, 1-HOUR PRECIPITATION OF 1.73 INCHES INTO FIGURE 403-5 FOR MOUNTAIN CONDITIONS FOR GRASS AND BRUSH. THE RATIONAL COEFFICIENT FOR HSG B IS 0.2 AND FOR HSG D IS 0.5. ACCORDING TO THE NOAA PRECIPITATION FREQUENCY DATA SERVER THE INTENSITY FOR A 25-YEAR STORM AT A TIME OF CONCENTRATION OF 10 MINUTES IS 5.03 INCHES/HOUR. THE RUNOFF VOLUME FOR A 25-YEAR, 24-HOUR STORM IS CALCULATED USING THE WEIGHTED C MULTIPLIED BY THE STORM PRECIPITATION AND THE AREA FOR EACH BASIN.

SEDIMENT VOLUME IS CALCULATED FROM THE SEDIMENT BULKING FACTOR. THE D_{50} FOR EACH SOIL IS DETERMINED BY PLOTTING A GRAIN SIZE DISTRIBUTION FOR EACH SOIL. THE PERCENT PASSING FOR EACH SOIL WAS OBTAINED FROM THE SOIL SURVEY OF SIERRA COUNTY. AFTER GRAPHING THE VALUES, THE D_{50} FOR EACH SOIL RANGES FROM .075 MM TO 0.2 MM. USING FIGURE 402-18 AND FIGURE 402-19, THE BULKING FACTOR FOR EACH SOIL WAS ESTIMATED TO BE 1.11. TO GET THE TOTAL PEAK FLOW AND RUNOFF VOLUME FOR EACH BASIN THE CLEAR WATER PEAK FLOW AND VOLUME ARE MULTIPLIED BY THE BULKING FACTOR.

RUNOFF FROM THE 100 BASINS WILL BE DIVERTED AROUND THE PIT TO THE EAST AND NORTH IN A SWALE AND EVENTUALLY DRAIN TO SEDIMENT POND NO. 1 IN BASIN 520. THIS SWALE WILL BE SIZED TO CARRY 23.8 CFS DURING A 25-YEAR STORM. RUNOFF FROM THE 200 BASINS WILL BE DIVERTED AROUND THE PIT TO THE WEST IN A SWALE TO SEDIMENT POND NO. 2 LOCATED IN BASIN 230. THIS SWALE WILL BE SIZED TO CONVEY 15.6 CFS DURING A 25- YEAR STORM. RUNOFF FROM THE 300 BASINS WILL DRAIN TO THE PIT AND WILL BE CONTAINED IN THE PIT. THE 400 BASINS INCLUDE AREAS NORTH OF THE PIT THAT DRAIN NORTH TO THE EPHEMERAL ARROYO. RUNOFF FROM THE 500 BASINS WILL BE CONTAINED IN A SWALE AND/OR DRAIN THROUGH BASIN 510 IN A SMALL ARROYO TO SEDIMENT POND NO. 1 IN BASIN 520. A TOTAL OF 46.0 CFS WILL BE CARRIED IN THE SMALL ARROYO TO THE POND. RUNOFF FROM BASIN 600 WILL BE CARRIED IN A ROADSIDE DITCH TO SEDIMENT POND NO. 3 WITHIN THE BASIN. A TOTAL OF 10.3 CFS WILL BE CARRIED IN THE ROADSIDE DITCH.

ALL THREE PONDS WILL BE RETENTION PONDS WITH AN EMERGENCY SPILLWAY SIZED TO PASS THE 25-YEAR, 24-HOUR STORM. THE EMERGENCY SPILLWAY WILL BE LINED WITH COBBLES OVER A NON-WOVEN GEOTEXTILE. THE TOP OF THE PONDS WILL BE A MINIMUM OF ONE FOOT ABOVE THE WATER SURFACE ELEVATION. THE TOP WIDTH OF THE BERM ON THE DOWNSTREAM END OF THE POND WILL BE 10-FEET. THE SIDE SLOPES OF THE POND AND THE DOWNSTREAM FACE WILL BE 5:1. THE EMBANKMENT FOUNDATION WILL BE CLEAR OF ALL VEGETATIVE MATTER. ANY FILL MATERIAL WILL BE CLEAR OF VEGETATIVE MATTER AND FROZEN SOIL. NMAC 19.10.5.508 WILL BE MET OR EXCEEDED FOR ALL THREE PONDS.

SEDIMENT POND NO. 1, WHICH ACCEPTS RUNOFF FROM BASINS 100 AND 500 WILL RETAIN A TOTAL OF 100,697 CUBIC-FEET DURING A 25-YEAR, 24-HOUR STORM INCLUDING SEDIMENT. THE WATER SURFACE ELEVATION WILL BE 5884.26 WITH A DEPTH OF 1.26 FEET. THE EMERGENCY SPILLWAY WILL BE A MINIMUM 16 FEET-WIDE TO PASS THE 25-YEAR FLOW OF 46.0 CFS. SEDIMENT POND NO. 2, WHICH ACCEPTS RUNOFF FROM BASINS 200 WILL RETAIN A TOTAL OF 34,045 CUBIC-FEET DURING A 25-YEAR, 24-HOUR STORM INCLUDING SEDIMENT. THE WATER SURFACE ELEVATION WILL BE 5914.19 WITH A DEPTH OF 1.19 FEET. THE EMERGENCY SPILLWAY WILL BE A MINIMUM 6 FEET-WIDE TO PASS THE 25-YEAR FLOW OF 15.6 CFS. SEDIMENT POND NO. 3, WHICH ACCEPTS RUNOFF FROM BASIN 600 WILL RETAIN A TOTAL OF 22,556 CUBIC-FEET DURING A 25-YEAR, 24-HOUR STORM INCLUDING SEDIMENT. THE WATER SURFACE ELEVATION WILL BE 5903.64 WITH A DEPTH OF 2.64 FEET. THE EMERGENCY SPILLWAY WILL BE A MINIMUM 4 FEET-WIDE TO PASS THE 25-YEAR FLOW OF 10.3 CFS.

25-YEAR HYDROLOGIC CALCULATIONS USING THE RATIONAL FORMULA FOR ST. CLOUD MINING SITE

BASIN #	AREA (acre)	HYDROLOGIC SOIL GROUP A (%)	B (%)	C (%)	D (%)	WEIGHTED C	25-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	BULKING FACTOR	V+Vs (cu-ft)	Q (cfs)	Q+ Qs (cfs)
CONSTRUCTED CONDITIONS														
BASIN 110	8.0950	0.00	100.00	0.00	0.00	0.20	0.324	14,105	0.409	17,807	1.11	19,766	8.14	9.04
BASIN 120	4.8690	0.00	67.00	0.00	33.00	0.30	0.291	12,683	0.368	16,013	1.11	17,774	7.32	8.13
BASIN 130	2.3870	0.00	0.00	0.00	100.00	0.50	0.239	10,398	0.301	13,127	1.11	14,571	6.00	6.66
BASIN 210	1.7390	0.00	100.00	0.00	0.00	0.20	0.070	3,030	0.088	3,825	1.11	4,246	1.75	1.94
BASIN 220	8.3030	0.00	100.00	0.00	0.00	0.20	0.332	14,467	0.419	18,265	1.11	20,274	8.35	9.27
BASIN 230	3.9010	0.00	100.00	0.00	0.00	0.20	0.156	6,797	0.197	8,581	1.11	9,525	3.92	4.36
BASIN 310	24.4490	0.00	75.00	0.00	25.00	0.28	1.345	58,575	1.698	73,951	1.11	82,085	33.82	37.54
BASIN 320	3.4120	0.00	100.00	0.00	0.00	0.20	0.136	5,945	0.172	7,506	1.11	8,331	3.43	3.81
BASIN 330	2.6820	0.00	0.00	0.00	100.00	0.50	0.268	11,683	0.339	14,750	1.11	16,372	6.75	7.49
BASIN 410	4.0370	0.00	0.00	0.00	100.00	0.50	0.404	17,585	0.510	22,201	1.11	24,643	10.15	11.27
BASIN 420	2.6970	0.00	0.00	0.00	100.00	0.50	0.270	11,748	0.340	14,832	1.11	16,464	6.78	7.53
BASIN 510	5.1780	0.00	0.00	0.00	100.00	0.50	0.518	22,555	0.654	28,476	1.11	31,609	13.02	14.46
BASIN 520	6.9530	0.00	100.00	0.00	0.00	0.20	0.278	12,115	0.351	15,295	1.11	16,978	6.99	7.76
BASIN 600	4.1990	0.00	20.00	0.00	80.00	0.44	0.370	16,096	0.467	20,321	1.11	22,556	9.29	10.32
TOTAL RUNOFF	82.9010						5.000	217,782	6.312	274,950		305,195	125.74	139.57
RATIONAL COEFFICIENT		0.2	0.2	0.26	0.5	C								

WEIGHTED C = $(C_A)(\%A) + (C_B)(\%B) + (C_C)(\%C) + (C_D)(\%D)$
$V_{6\text{-HR}}$ (acre-ft) = (WEIGHTED C)(AREA)($P_{6\text{-HR}}$)/12
$V_{24\text{-HR}}$ (acre-ft) = (WEIGHTED C)(AREA)($P_{24\text{-HR}}$)/12
Q (cfs) = (WEIGHTED C)(I)(A)

INTENSITY (I) = 5.03
$P_{6\text{-HR}}$ (in.) = 2.40
$P_{24\text{-HR}}$ (in.) = 3.03

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NEW MEXICO — 9677 — LICENSED PROFESSIONAL ENGINEER

ST. CLOUD MINING
DRAINAGE IMPROVEMENTS
SIERRA COUNTY

DRAINAGE BASIN MAP

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