NPDES Permit No. IL0080004
Notice No. drgIL0080004

Public Notice Beginning Date: **July 3, 2013**

Public Notice Ending Date: **August 5, 2013**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft New NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA
Bureau of Water
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger:

Illinois Sand Company, LLC
1601 Rockwell Rd.
LaSalle, IL 61301

Name and Address of Facility:

Illinois Sand Company Mine
US Rt. 6 and E 11th Rd.
North Utica, IL 61373
(LaSalle County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commenters shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commenters may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call Darren Gove at 217/782-0610.

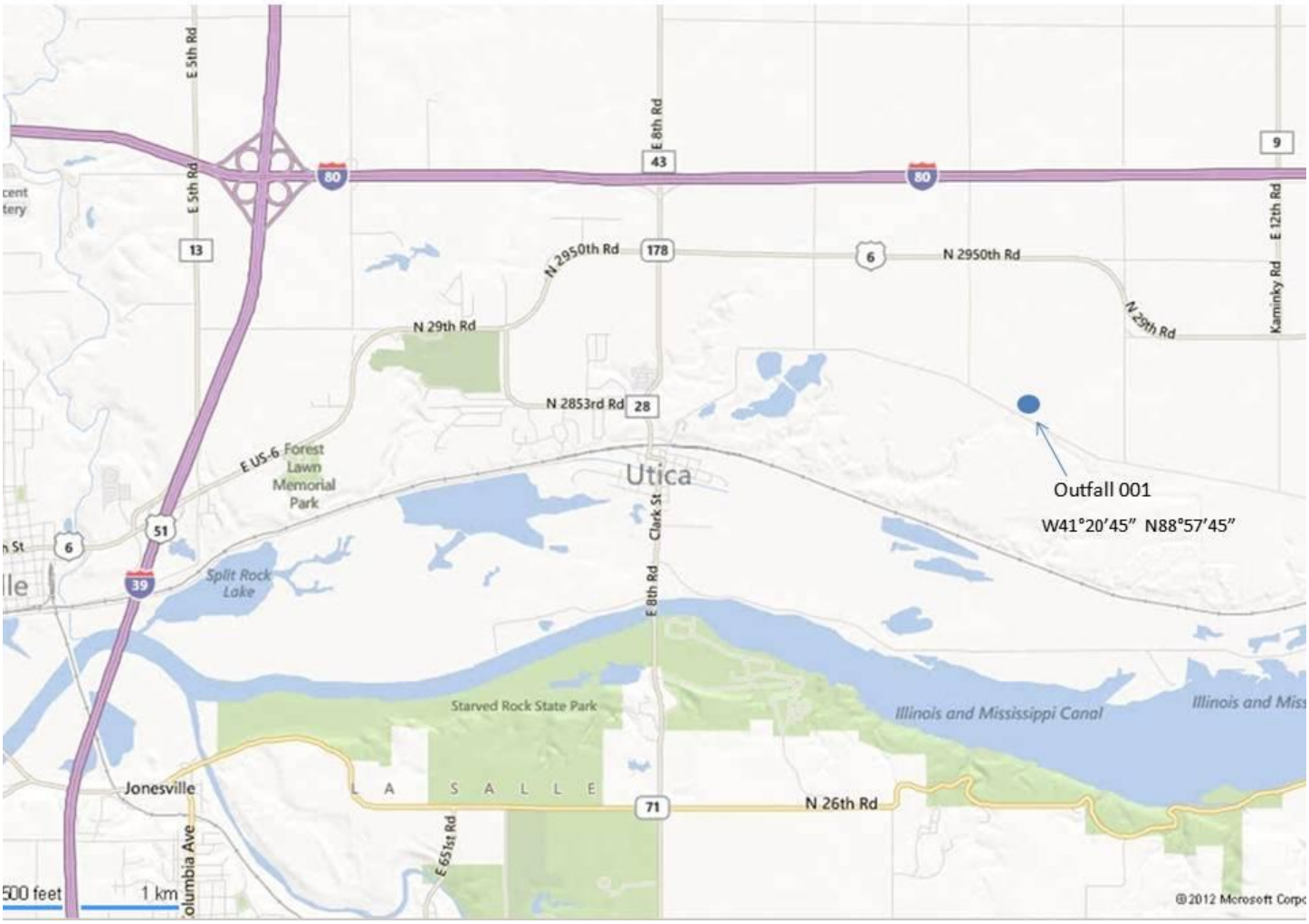
The applicant proposes a new surface sand mine and will be engaged in excavation, extraction and processing of industrial sand (SIC 1446). Wastewater is generated from pit pumpage, process water and stormwater runoff. Plant operations result in an average discharge of 0.144 MGD of groundwater seepage, process water and stormwater runoff from outfall 001 to an unnamed tributary of the Illinois River.

Application is made for one (1) new discharges which is located in LaSalle County, Illinois. The following information identifies the discharge point, receiving stream and stream classification:

Outfall	Receiving Stream	Latitude		Longitude		Stream Classification	Biological Stream Characterization
001	Unnamed Tributary to Illinois River	41° 20' 45"	North	88° 57' 45"	West	General Use	Not Rated

To assist you further in identifying the location of the discharge please see the attached map.

Illinois Sand Company, North Utica, LaSalle County



The stream segment(s) receiving the discharge from outfall(s) 001 is not on the 303(d) list of impaired waters.

The alkaline mine discharge from the facility shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Outfall(s): 001 – Groundwater, Process Water and Storm Water Runoff						
Total Suspended Solids				25	45	40 CFR Part 436
Iron (Total)					3.5	406.106(b)
pH	Shall be in the Range of 6.5-9 Standard Units					302.204
Alkalinity/Acidity	Total Acidity shall not Exceed Total Alkalinity.					302.204
Sulfates					1,987	302.208(h)
Chloride					500	302.208(g)
Hardness	Monitoring Only					Required to determine appropriateness of sulfate limit
Manganese (Total)					2.0	406.106(b)
Flow(MGD)						
Offensive Conditions	No effluent shall contain settleable solids, floating debris, visible oil, grease, scum or sludge solids, color, or odor. Turbidity shall be below obviously visible levels.					406.107
Toxic Metals, cyanide and Total Phenols	Monitoring Only					35 IAC 302 and 304

Antidegradation Assessment for Illinois Sand Company, LLC - Illinois Sand Company Mine
NPDES Permit No. IL0080004 LaSalle County

The subject facility is a new sandstone quarry that will crush, wash and size sandstone to produce industrial sand. The mine area will entail 185 acres initially and will include 564 acres over its lifetime. The entire 564 acres is being authorized through the NPDES permit. A settling pit receives surface water runoff and groundwater seepage from all areas of activity at the site which then discharges to a clear water pond. The clear water pond water will be used for the water needs of the quarry. Excess water from the clear water pond will be discharged intermittently to an unnamed tributary of the Illinois River. A coal seam exists above the sand to be mined. The coal and associated acid producing material will be disposed of offsite at an approved landfill or will be trucked to a facility affiliated with the applicant for beneficial use. The average flow for the outfall is 0.144 MGD when pumping.

Identification and Characterization of the Affected Water Body.

The receiving stream is an unnamed tributary of the Illinois River (no segment code), which is a General Use water with a 7Q10 flow of zero cfs. The unnamed tributary of the Illinois River is not listed as an impaired water in the draft 2012 Illinois Integrated Water Quality Report and Section 303(d) List for aquatic life uses. The Monitoring Unit at Illinois EPA has not evaluated this water body. The unnamed tributary of the Illinois River is not given an integrity rating in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System* at this location. The unnamed tributary of the Illinois River is not an enhanced water body pursuant to the dissolved oxygen water quality standard. The IDNR WIRT system indicates that no threatened or endangered species are known from the unnamed tributary of the Illinois River at this location.

The applicant arranged for a stream survey of the receiving stream. ENCAP, Inc. conducted the survey and provided its findings in a July 31, 2012 report entitled Site Specific Stream Assessment Report, Sand Mine Stream, Utica Township, LaSalle County, Illinois. The survey was conducted in mid July during very dry weather conditions. The receiving stream (the unnamed tributary of the Illinois

River) was mostly dry with a few small, isolated, shallow pools present. Macroinvertebrates were sampled in three pools corresponding to the upper, middle and lower areas of the stream as it crosses quarry property. All three pools showed poor macroinvertebrate communities with no ephemeroptera/plecoptera/tricoptera (EPT) species found. Most of the macroinvertebrates found were environmentally tolerant forms. No fish were observed in any of the isolated pools. ENCAP concluded that poor water quality, due to agricultural practices, accounted for the poor macroinvertebrate communities, a position that IEPA does not agree with. The lack of fish and poor macroinvertebrate community is best explained by the small size of the watershed and lack of supplemental water inflow between rain events, or in other words, lack of permanent water. In a year with normal precipitation, this stream would be expected to hold a few species of fish typical of intermittent, headwater streams. A water chemistry sample taken from the receiving stream showed that all parameters were within water quality standards and showed no elevated levels that could be associated with a pollution source.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The quarry discharge will consist of collected and settled stormwater runoff and groundwater. Groundwater analysis showed no unusual conditions. Total suspended solids in the discharged effluent would not be expected to be increased from the loading in runoff to the receiving stream from the current agricultural land use. Chloride and sulfate will have a slight load increase over current levels due to the presence of coal on the site. Some runoff from temporary coal piles in the transfer or loading areas will occur before the coal can be loaded on trucks and removed from the site. Runoff from preliminary excavations at the site exposing some coal and associated acid producing material was sampled by Illinois EPA and no unusual levels of metals, chloride or sulfate was found. Water quality standards will be met in the final effluent from the clear pond; no adverse impact on the receiving stream is anticipated.

Fate and Effect of Parameters Proposed for Increased Loading.

Chloride and sulfate will persist in the water column of the receiving stream as these are dissolved substances. Total suspended solids will partition to the stream bed much as they previously did. No adverse impacts to the stream bed or water quality are anticipated.

Purpose and Anticipated Benefits of the Proposed Activity.

The proposed quarry will provide silica sand for industrial use. The sand quarry will have 70 employees and will be a positive factor for the local economy.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

Settling basins to treat stormwater runoff is standard operating practice at quarries. Practical alternatives to this method of treatment do not exist. The quarry will use some of the stormwater or groundwater seepage that enters the pit for internal operations.

Non-discharging systems are impractical given the limited evaporation that occurs in Illinois. Collecting and holding all water for irrigation is not feasible given that crops do not need irrigation immediately after rainfall events. Storage of the water until it is needed for irrigation would require very large holding lagoons.

A sewage treatment facility exists at North Utica, but this facility does not have the capacity to accept the relatively clean effluent discharge from the clear water pond.

The quarry company investigated the use of alternative treatment technologies including membrane treatment such as reverse osmosis. These treatment methods create high salt waste streams that would have to be disposed of elsewhere. These processes are not intended for relatively clean stormwater and groundwater that may be safely discharged to surface streams. Likewise, biological treatment and chemical precipitation were rejected as ill-suited to this type of waste water.

One alternative investigated would be to transport the coal to a facility to use as cleaned coal in its operations. However, due to the fact that the coal would not be processed to remove impurities it would be unsuitable to be utilized by any facility currently using cleaned coal. There are no coal processing facilities in the area and therefore this option is infeasible.

Another alternative is to create a disposal site at the quarry and permanently bury the coal and associated acid producing materials as soon as they are mined on an undisturbed portion of the quarry. This option would result in a portion of the quarry not being mined, thereby a portion of the minable sand would remain in place. This option creates a potential hazard for groundwater.

The alternative chosen as the best method of dealing with the coal and associated acid producing materials is to truck these offsite to an appropriate landfill, or, to a site that can use this type of coal material for beneficial uses. The protocol for this alternative was provided in a May 22, 2013 letter from Chamlin & Associates. This alternative minimizes the exposure of the coal materials to the elements and assures that the ultimate disposal of the materials will be suitable for groundwater as well as surface water protection.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

The Illinois Department of Natural Resources was consulted regarding threatened and endangered species issues via the EcoCAT system on August 29, 2012. It was immediately determined that no threatened or endangered species reside in the receiving stream and consultation was terminated.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large through the creation of 70 jobs. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

NPDES Permit No. IL0080004

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

New (NPDES) Permit

Expiration Date:	Issue Date: Effective Date:
Name and Address of Permittee:	Facility Name and Address:
Illinois Sand Company, LLC 1601 Rockwell Rd. LaSalle, IL 61301	Illinois Sand Company Mine US Rt. 6 and E 11th Rd. North Utica, IL 61373 (LaSalle County)
Discharge Number and Name:	Receiving Waters:
Mine Outfalls	
001 - Mine Dewatering and Groundwater Seepage	Unnamed Tributary to Illinois River
Other Outfalls	
Storm Water Runoff*	Unnamed Tributary to Illinois River
Non-Storm Water Discharges*	Unnamed Tributary to Illinois River

* See Special Condition 17.

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

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NPDES Permit No. IL0080004

Permit Limitations and Monitoring

From the effective date of this permit until the expiration date, the effluent from the following discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall(s): 001 – Alkaline Mine Drainage, Surface Stormwater Runoff and Process Water							
Total Suspended Solids				25	45	**	***
Iron					3.5	**	***
pH	Shall be in the Range of 6.5-9 Standard Units. The monthly minimum and maximum shall be reported on the DMR.					**	***
Alkalinity/Acidity	Total Acidity Shall Not Exceed Total Alkalinity. The monthly minimum and maximum shall be reported on the DMR.					**	***
Sulfate					1,987	**	***
Chloride					500	**	***
Manganese					2.0	**	***
Hardness	Monitoring Only					**	***
Flow (MGD)						*	Grab
Offensive Conditions	No effluent shall contain settleable solids, floating debris, visible oil, grease, scum or sludge solids, color, or odor. Turbidity shall be below obviously visible levels.					3 Per Month	Visual Inspection
Toxic Metals, cyanide and Total Phenols	Monitoring Only					Semi-Annually	****

* Effluent sampling for flow shall be continuous if hardware allows otherwise it shall be a single reading when monitoring each parameter. Flows shall be reported as a monthly average on the Discharge Monitoring Reports (DMR).

** Samples shall be taken three times a month as separate grab samples or one time a month as a composite sample. A “no flow” situation is not considered to be a sample of the discharge

*** Composite samples shall consist of at least 3 sample aliquots of approximately equal volume of at least 100 milliliters each, collected at periodic intervals within a 24-hour period. If the permittee elects to take and analyze grab samples, in lieu of a composite sample then: 1) if the discharge is expected to occur on only a single day, three grab samples may be taken within a single 24-hour period or, 2) if the discharge is expected to occur on more than one day three separate grab samples shall be taken over more than one day to represent the monthly discharge. The one composite sample or three grab samples shall be representative of the discharge over the calendar month. The analysis results of each composite and grab sample shall be reported on the Discharge Monitoring Reports. The monthly average shall be reported on the Discharge Monitoring Reports.

**** See Special Condition No. 12

Storm water runoff shall be subject to the Storm Water Runoff Pollution Prevention Plan.

Discharge sampling and monitoring must be representative of the discharges from the facility considering factors such as frequency, duration and intensity of precipitation runoff and operational practices that affect discharge quality.

The water quality standards for sulfate and chloride must be met in discharges from the above referenced outfall as well as in the receiving stream at the monitoring location downstream of the associated outfall. See Stream monitoring Special Condition number 13.

Special Conditions

SPECIAL CONDITION 1. Permit Coverage: For the purpose of this permit, the covered discharges through the mine outfalls are limited to storm water discharges, non-storm water discharges, process wastewater discharges, mine dewatering discharges, pit pumpage and pit overflow discharges. Stormwater runoff discharges and certain non-stormwater discharges are covered by Special Condition 17 of this permit.

SPECIAL CONDITION 2. No discharge from any mine related facility area under this permit shall, alone or in combination with other sources, cause a violation of any applicable water quality standard as set out in the Illinois Pollution Control Board Rules and Regulations, Subtitle C: Water Pollution.

SPECIAL CONDITION 3. The permit holder shall notify the Illinois Environmental protection Agency (217/782-3637) immediately of any emergency at the mine or mine refuse area which causes or threatens to cause a sudden discharge of contaminants into the waters of Illinois and shall immediately undertake necessary corrective measures as required by Rule 405.111 under Chapter 1, Subtitle D: Mine Related Water Pollution of Illinois Pollution Control Board Rules and Regulations.

SPECIAL CONDITION 4. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 5. Discharge Monitoring Reports: All periodic monitoring including effluent discharges from mine outfall(s), stream monitoring and groundwater monitoring shall be reported on Discharge Monitoring Report (DMR) forms and submitted to the Agency according to the appropriate schedules outlined in Special Condition 6 and 7 below. The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information about the eDMR program, including registration, can be obtained on the IEPA website at http://www.epa.state.il.us/water/edmr/index.html. Permittees not using eDMRs shall mail the DMRs with original signature to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276
Attn: Compliance Assurance Section, Mail Code #19

SPECIAL CONDITION 6. Discharge Monitoring Schedule: Mine outfall discharges shall be monitored and reported monthly for all parameters listed on page 2 "Permit Limitations and Monitoring" except toxic metals, cyanide and total phenols. If there is no discharge during a reporting period, a Discharge Monitoring Report shall be submitted stating that no discharge occurred during that particular month. The completed DMR forms shall be submitted monthly to the IEPA no later than the 15th day of the following month at the address specified in Special Condition 5, unless otherwise specified by the IEPA. Toxic metals, cyanide and total phenols shall be monitored and reported on a semi-annual basis in accordance with Special Condition 12 and the following schedule:

Monitoring Period	Received by IEPA
January through June	August 1
July through December	February 1

SPECIAL CONDITION 7. Schedule for other Monitoring: Monitoring and reporting for purposes other than mine outfall discharge monitoring (i.e. stream monitoring and groundwater monitoring), shall be submitted on a quarterly basis in accordance with the following schedule. Stream and groundwater monitoring shall be conducted in accordance with Special Condition 13 of this permit and the Construction Authorization, respectively.

Monitoring Period	Received by IEPA
January, February, March	May 1
April, May, June	August 1
July, August, September	November 1
October, November, December	February 1

SPECIAL CONDITION 8. The permittee shall notify the Agency in writing by certified mail within thirty days of abandonment, cessation, or suspension of active mining for thirty days or more unless caused by a labor dispute. During cessation or suspension of active mining, whether caused by a labor dispute or not, the permittee shall provide whatever interim impoundment, drainage diversion, and wastewater treatment is necessary to avoid violations of the Act or Subtitle D, Chapter 1.

Special Conditions

SPECIAL CONDITION 9. All points of use of the water supply and distribution systems supplied by the on-site well owned by the permittee and identified in the permit application as being for sand processing purposes shall be posted as non-potable or not for human consumption.

SPECIAL CONDITION 10. The Agency must be informed in writing and an application submitted if drainage, which was previously classified as alkaline (pH greater than 6.5), becomes acid (pH less than 6.5) or ferruginous (base flow with an iron concentration greater than 10 mg/l). The type of drainage reporting to the basin should be reclassified in a manner consistent with the applicable rule of 35 Ill. Adm. Code 406 as amended in R84-29 at 11 Ill. Reg. 12899. The application should discuss the treatment method and demonstrate how the discharge will meet the applicable standards.

SPECIAL CONDITION 11. The permittee has the obligation to add a settling aid if necessary to meet the suspended solids or settleable solids effluent standards. The selection of a settling aid and the application practice shall be in accordance with (a) or (b) below.

a. Alum ($Al_2(SO_4)_3$), hydrated lime ($Ca(OH)_2$), soda ash (Na_2CO_3), alkaline pit pumpage, acetylene production by-product (tested for impurities), and ground limestone are acceptable settling aids and are hereby permitted for alkaline mine drainage sedimentation ponds.

b. Any other settling aids such as commercial flocculants and coagulants are permitted only upon prior approval from the Agency. To obtain approval, a permittee must demonstrate in writing to the Agency that such use will not cause a violation of the toxic substances standard of 35 Ill. Adm. Code 302.210 or of the appropriate effluent and water quality standards of 35 Ill. Adm. Code parts 302, 304, and 306.

SPECIAL CONDITION 12. Semi-Annual Effluent Monitoring: The Permittee shall conduct semi-annual monitoring of the effluent and report concentrations (in mg/l) of the following listed parameters. Monitoring shall begin three (3) months from the effective date of this permit. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below. The results shall be submitted on Discharge Monitoring Report Forms to IEPA unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are listed in Table 1 below:

Table 1.

STORET CODE	PARAMETER	MINIMUM REPORTING LIMIT
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (weak acid dissociable) (grab	5.0 µg/L
00720	Cyanide (total) (grab)	5.0 µg/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (grab)**	1.0 ng/L*
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (grab sample only)	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

*1.0 ng/L = 1 part per trillion.
** Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

SPECIAL CONDITION 13. Stream Monitoring:

a. For discharges resulting from precipitation events, in addition to the monthly "Permit Limitations and Monitoring" requirements, flow within the unnamed tributary of the Illinois River shall be monitored and reported for Flow Rate, TSS, Sulfate, Chloride and Hardness in accordance with the frequency schedule of Special Condition No. 7.

b. The following sampling and monitoring requirements are applicable to flow in the unnamed tributary of the Illinois River which receives discharge from mine outfall 001.

i). All sampling and monitoring required under item (ii) below shall be performed concurrently with a discharge monitoring event from the associated mine outfall. When discharges from the associated mine outfall occur during stream monitoring events, the outfall shall also be monitored and reported for Flow Rate, TSS, Chloride, Sulfate and Hardness.

ii). The unnamed tributary to the Illinois River shall be monitored for each quarter that a discharge occurs from the mine outfall and reported quarterly for Flow Rate, TSS, Chloride, Sulfate and Hardness at points downstream of the facility. The downstream monitoring location shall be a sufficient distance downstream in order to ensure that complete mixing has occurred. For quarters where no discharge occurs from the mine outfall, no discharge shall be recorded and reported in the quarterly report as required by special condition 7. At such time that sufficient information has been collected regarding receiving stream flow characteristics and in-stream contaminant concentrations the permittee may request a reevaluation of the monitoring frequency required herein for possible reduction or elimination. For the purpose of re-evaluating the downstream monitoring frequency of the receiving stream, "sufficient information" is defined as a minimum of ten (10) quarterly sampling events.

iii). The unnamed tributary to the Illinois River shall be monitored and reported annually for Flow Rate, TSS, Chloride, Sulfate and Hardness upstream of the associated mine outfall.

iv). The samples for in-stream monitoring shall be a composite sample collected during a period not to exceed 24 hours. For reporting purposes, DMR reports shall reference the upstream sampling location as SSL-US and the downstream location as SSL-DS.

c. Should the Agency's evaluation of this data indicate revised effluent limits are warranted; this permit may be reopened and modified to incorporate more appropriate measures.

SPECIAL CONDITION 14. Any of the following shall be a violation of the provisions required under 35 Ill. Adm. Code 406.202:

a. It is demonstrated that an adverse effect on the environment in and around the receiving stream has occurred or is likely to occur.

b. It is demonstrated that the discharge has adversely affected or is likely to affect any public water supply.

c. The Agency determines that the permittee is not utilizing Good Mining Practices in accordance with 35 Ill. Adm. Code 406.204 which are fully described in detail in Sections 406.205, 406.206, 406.207, and 406.208 in order to minimize the discharge of total dissolved solids, chloride, sulfate, iron and manganese. To the extent practical, such Good Mining Practices shall be implemented to:

i). Stop or minimize water from coming into contact with disturbed areas through the use of diversions and/or runoff controls (Section 406.205).

ii). Retention and control within the site of waters exposed to disturbed materials utilizing erosion control, sedimentation controls, water reuse or recirculation, minimization of exposure to disturbed materials, etc. (Section 406.206).

iii). Control and treatment of waters discharged from the site by regulation of flow of discharges and/or routing of discharges to more suitable discharge locations.

iv). Utilize unconventional practices to prevent the production or discharge of waters containing elevated contaminant concentrations such as diversion of groundwater prior to entry into a surface mine, dewatering practices to remove clean water prior to contacting disturbed materials and/or any additional practices demonstrated to be effective in reducing contaminant levels in discharges (Section 406.208).

d. The Agency determines that the permittee is not utilizing Best Management Practices associated with acid producing mine refuse disposal activities in order to minimize the discharge of total dissolved solids, chloride, sulfate, iron and manganese. The Best Management Practices to be implemented are:

i). Systematic covering of older refuse with fresh refuse material in order to prevent oxidation.

ii). Compaction of refuse material to reduce infiltration.

iii). Minimize long term end-dumping to prevent acidification.

iv). Neutralize uncontrolled acid/sulfate runoff from refuse disposal area.

v). Following active use, application of alkaline amendment and covering of acid producing mining refuse disposal areas.

SPECIAL CONDITION 15. Storm Water Discharges: The Illinois Environmental Protection Agency has determined that the effluent limitations for the mine outfall(s) in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit issuance, and no pollution prevention plan will be required for such storm water. This does not preclude the use of pollution prevention techniques as a means or partial means of meeting the effluent limits. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with mining and determine whether any facility modifications have occurred which result in previously treated storm water discharges no longer receiving treatment. If any such discharges are identified, the permittee shall request a modification of this permit within 30 days after the inspection unless such discharges meet the conditions of Special Condition No. 17. Records of the annual inspection shall be retained by the permittee for the term of this permit and shall be made available to the Illinois Environmental Protection Agency upon request.

SPECIAL CONDITION 16. Prohibited Storm Water Discharges: This permit is not applicable to storm water discharges from the following facilities:

a. Hazardous waste treatment, storage or disposal facilities.

b. Storm water discharges associated with inactive mining occurring on Federal lands where an operator cannot be identified.

SPECIAL CONDITION 17. Storm Water Runoff: All storm water runoff from areas affected by mining activities such as, earthen berms, aggregate processing plants, overburden stockpiles, and crushed stone stockpiles, sand and gravel stockpiles and industrial sand product stockpiles and all storm water associated with industrial activity at a mining site such as asphalt plants and ready mix plants, shall be routed to mine outfalls except for the following identified in (a) and (b) below:

a. **Surface Runoff from Earthen Areas:** Surface runoff from earthen berms or other earthen areas using spoil from the mining operation is not required to be routed to a mine outfall when the earthen areas meet the following conditions:

i) The area is graded to an acceptable slope, covered with sufficient uncontaminated topsoil as needed to support vegetation, seeded at an adequate rate with an appropriate grass mixture to stabilize such areas, properly maintained with vegetation and other practices to minimize the potential for erosion and final stabilization has been completed for the area.

ii) For areas in which final stabilization under (a) (i) of this Special Condition are incomplete, erosion control measures described in the Illinois Urban Manual (IEPA/USDA, NRCS;2012) are implemented.

iii) The earthen berms or areas are not contaminated by mine refuse, chemical spillage, other wastes or wastewaters from mining activities at the site.

iv) The earthen material does not contain acid producing material.

v) The earthen area has no contact with waters of the State.

vi) Surface runoff from the earthen areas does not cause water quality violations.

vii) The area is identified in the storm water pollution prevention plan required in (b) below as meeting (a) (i-vi) of this Special Condition above.

b. **Storm Water Discharges and Certain Non-storm Water Discharges.** Storm water runoff discharges and non-storm water discharges are allowed according to the following conditions and this permit provided that the discharges do not contain the following: mine process wastewater; pit pumpage; pit overflows; mine dewatering wastewaters; cooling waters, heated effluents or surface runoff from disturbed earthen areas that contain mine refuse, chemical spillage, other wastes, or acid producing material.

i) **Prohibition on Non-Storm Water Discharges**. All discharges covered by this special condition shall be composed entirely of storm water except for:

discharges from firefighting activities; fire hydrant flushings; waters used to control dust on vehicle traffic areas outside the mine area and mined area; potable water sources including uncontaminated waterline flushings; irrigation drainages; routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents. These non-storm water discharges must comply with (b) (ii) (D) (ii) (3) of this Special Condition.

ii) **Storm Water Pollution Prevention Plans**

A storm water pollution prevention plan shall be developed for surface runoff from each mining site covered by this special condition. Storm water pollution prevention plans shall be prepared in accordance with good engineering practices. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity at a mining site. In addition, the plan shall describe and ensure the implementation of practices which will be used to reduce the pollutants in storm water discharges associated with industrial activity at a mining site and to assure compliance with the terms and conditions of this permit. Facilities must implement the provisions of the storm water pollution prevention plan required under this part as a condition of this permit.

(A) **Deadlines for Plan Preparation and Compliance.**

The plan shall:

(i) Be completed prior to the start of the mining activities to be covered under this special condition and updated as appropriate; and

(ii) Provide for compliance with the terms and schedule of the plan beginning with the initiation of mining activities.

(B) **Signature, Plan Review and Notification.**

(i) The plan shall be signed in accordance with Standard Condition 11 Attachment H (Signatory Requirements), and be retained on-site at the facility which generates the storm water discharge in accordance with Standard Condition 8 Attachment H (Duty to Provide Information) of this permit.

(ii) The permittee shall make plans available upon request from this Agency or a local agency approving sediment and erosion plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity at a mining site which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system.

(iii) The Agency may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this special condition. Such notification shall identify those provisions of the permit which are not being met by the plan, and identify which provisions of the plan require modifications in order to meet the minimum requirements of this part. Within 30 days from receipt of notification from the Agency, the permittee shall make the required changes to the plan and shall submit to the Agency a written certification that the requested changes have been made. Failure to comply shall terminate authorization under this special condition.

(iv) All storm water pollution prevention plans required under this permit are considered reports that shall be available to the public at any reasonable time upon request. However, the permittee may claim any portion of a storm water pollution prevention plan as confidential in accordance with 40 CFR Part 2, including any portion describing facility security measures.

(C) **Keeping Plans Current.** The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the Waters of the State and which has not otherwise been addressed in the plan or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified under (b) (ii) (D) (ii) of this Special Condition below, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with mining activities. Amendments to the plan may be reviewed by the Agency in the same manner as (b) (ii) (B) (ii) of this Special Condition above.

(D) **Contents of Plan.** The storm water pollution prevention plan shall include the following items:

(i) Site Description. Each plan shall provide a description of the following:

1. A description of the intended sequence of major activities which disturb soils for major portions of the site (e.g. grubbing, excavation, grading);

2. Estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities;

3. An estimate of the runoff coefficient of the site after mining activities are completed and existing data describing the soil or the quality of any discharge from the site;

4. A site map indicating drainage patterns and approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking, areas of soil disturbance, the location of major structural and nonstructural controls identified in the plan, the location of areas where stabilization practices are expected to occur, an outline of storm water drainage areas for each storm water discharge point, paved areas and buildings, and locations where storm water is discharged to a surface water;

5. Description of the areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.

   a. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);

   b. Surface water locations and/or municipal storm drain locations;

   c. Areas of existing and potential soil erosion;

   d. Vehicle service areas;

   e. Material loading, unloading, and access areas.

6. A narrative description of the following:

   a. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;

   b. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;

   c. Industrial storm water discharge treatment facilities;

   d. Methods of onsite storage and disposal of significant materials;

   e. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities;

   f. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings;

   g. A summary of existing sampling data describing pollutants in storm water discharges;

   h. The name of the receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site.

(ii) **Controls.** Each plan shall include a description of appropriate controls that will be implemented at the mining site. The plan will clearly describe for each major activity identified in (b) (ii) (D) (i) (1) of this Special Condition above, appropriate controls and the timing during the mining process that the controls will be implemented. (For example, perimeter controls for one portion of the site will be installed after the clearing and grubbing necessary for installation of the measure, but before the clearing and grubbing for the remaining portions of the site. Perimeter controls will be actively maintained until final stabilization of those portions of the site upward of the perimeter control. Temporary perimeter controls will be removed after final stabilization). The description of controls shall address as appropriate the following minimum components:

Special Conditions

1. Erosion and Sediment Controls.

   a. Stabilization Practices. A description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans should ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be included in the plan. Except as provided in paragraphs i and ii below, stabilization measures shall be initiated as soon as practicable in portions of the site where mining activities have temporarily or permanently ceased, but in no case more than 7 days after the mining activities in that portion of the site has temporarily or permanently ceased.

      i. Where the initiation of stabilization measures by the 7th day after mining activities temporarily or permanently cease is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.

      ii. Where mining activities will resume on a portion of the site within 14 days from when activities ceased, (e.g. the total time period that mining activities is temporarily ceased is less than 14 days) then stabilization measures do not have to be initiated on that portion of site by the 7th day after mining activities temporarily ceased.

   b. Structural Practices. A description of structural practices to the degree attainable, to divert flows from disturbed earthen areas, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Structural practices should be placed on upland soils to the degree attainable. The installation of these devices may be subject to Section 404 of the CWA.

   c. Best Management Practices for Impaired Waters. For any site which discharges directly to an impaired water identified in the Agency's 303(d) listing for suspended solids, turbidity, or siltation the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations or the Illinois Environmental Protection Agency's Illinois Urban Manual, the storm water pollution prevention plan shall adhere to a more restrictive design criteria.

2. Storm Water Management. A description of measures that will be installed during mining to control pollutants in storm water discharges that will occur after mining operations have been completed. Structural measures should be placed on upland soils to the degree attainable. The installation of these devices may be subject to Section 404 of the CWA. This permit only addresses the installation of storm water management measures, and not the ultimate operation and maintenance of such structures after the mining activities have been completed and the site has undergone final stabilization. Permittees are responsible for only the installation and maintenance of storm water management measures prior to final stabilization of the site, and are not responsible for maintenance after storm water discharges associated with industrial activity at a mining site have been eliminated from the site.

   a. Such practices may include: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The pollution prevention plan shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed predevelopment levels.

   b. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of mining activities).

c. Unless otherwise specified in the Illinois Environmental Protection Agency's Illinois Urban Manual, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

d. Other Controls.

   i. No solid materials, including building materials, shall be discharged to Waters of the State, except as authorized by a Section 404 permit.

   ii. The plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

e. Pollution Prevention Practices

   i. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.

   ii. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.

   iii. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

   iv. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill clean up equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.

   v. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:

      Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff;

      Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges;

      Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges;

      Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.

      Storm Water Diversion - Storm water diversion away from mining excavation, materials processing, materials storage and other areas of potential storm water contamination;

      Covered Storage, Processing or Mining Areas - Covered fueling operations, materials processing and storage areas to prevent contact with storm water.

   vi. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.

vii. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.

3. Verification of Non-Storm Water Discharges - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges. The certification shall include a description of any tests for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible. Except as provided in (b) (i) of this Special Condition, discharges not comprised entirely of storm water are not authorized by this Special Condition.

4. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.

5. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated thereunder, and Best Management Programs under 40 CFR 125.100.

6. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.

7. Facilities which discharge storm water associated with industrial activity at a mining site to municipal separate storm sewers may also be subject to additional requirements imposed by the operator of the municipal system.

8. Approved State or Local Plans. - The management practices, controls and other provisions contained in the storm water pollution prevention plan must be at least as protective as the requirements contained in Illinois Environmental Protection Agency's Illinois Urban Manual, 2012. Facilities which discharge storm water associated with industrial activities at a mining site must include in their storm water pollution prevention plan procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials. Requirements specified in sediment and erosion site plans or site permits or storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon the effective date of this NPDES permit to be authorized to discharge, incorporated by reference and are enforceable under this permit even if they are not specifically included in a storm water pollution prevention plan required under this permit. This provision does not apply to provisions of master plans, comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit that is issued for the mining site.

(iii) **Maintenance.** A description of procedures to maintain in good and effective operating conditions vegetation, erosion and sediment control measures and other protective measures identified in the site plan.

(iv) **Inspections.** Qualified personnel (provided by the permittee) shall inspect disturbed areas of the mining site that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site annually. Qualified personnel means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a licensed professional engineer or other knowledgeable person who possesses the skills to assess conditions at the mining site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the mining activities.

1. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

2. Based on the results of the inspection, the description of potential pollutant sources identified in the plan in accordance with (b) (ii) (D) (i) of this Special Condition (Site Description) and pollution prevention measures identified in the plan in accordance with (b) (ii) (D) (ii) of this Special Condition (Controls) shall be revised as appropriate as soon as practicable after such inspection. Such modifications shall provide for timely implementation of any changes to the plan within 30 calendar days following the inspection.

3. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with (b) (ii) (D) (iv) 2 of this Special Condition above shall be made and retained as part of the storm water pollution prevention plan for at least three years from the date that the permit coverage expires or is terminated. The report shall be signed in accordance with standard conditions Attachment H (Signatory Requirements) of this permit.

4. The permittee shall complete and submit within 5 days an "Incidence of Noncompliance" (ION) report for any violation of the storm water pollution prevention plan observed during an inspection conducted, including those not required by the Plan. Submission shall be on forms provided by the Agency and include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance.

5. All reports of noncompliance shall be signed by a responsible authority as defined in standard conditions Attachment H (Signatory Requirements).

6. All reports of noncompliance shall be mailed to the Agency at the following address:

   Illinois Environmental Protection Agency
   Compliance Assurance Section
   1021 North Grand Avenue East
   Post Office Box 19276
   Springfield, Illinois 62794-9276

(v) **Non-Storm Water Discharges** - Except for flows from firefighting activities, sources of non-storm water listed in (b) (i) of this Special Condition that are combined with storm water discharges associated with industrial activity at a mining site must be identified in the plan. The plan shall identify and insure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

(vi) **Discharging Pollutants for Which a Water Body is Impaired With an Approved TMDL**.

1. Existing dischargers, new dischargers and new sources: you must carefully document the justifications for all BMP selections in your SWPPP, and install, implement and maintain BMPs that are consistent with all relevant TMDL allocations and with all relevant conditions in an implementation plan.

2. For discharges to waters for which there is a TMDL allocation for sediment or a parameter that addressed sediment (such as total suspended solids, turbidity, or siltation), the applicant shall develop and certify a SWPPP that is consistent with the assumptions and requirements in the approved TMDL. Operators must incorporate into their SWPPP any conditions applicable to their discharges necessary for consistency with the assumptions and requirements of the TMDL within any timeframes established in the TMDL. If a specific numeric wasteload allocation has been established that would apply to the facility's discharges, the operator must incorporate that allocation into its SWPPP and implement necessary steps to meet that allocation.

SPECIAL CONDITION 18. Oil and Hazardous Substance Liability: Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the CWA.

SPECIAL CONDITION 19. Oil and Hazardous Substance Discharge Prohibition: This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill, and does not supersede any reporting requirements for spills or releases of hazardous substances or oil.

SPECIAL CONDITION 20. Bulk Storage and Hazardous Waste Containment Area: Provisions for handling storm water from bulk storage and hazardous waste containment areas.

a. This permit does not authorize the discharge of storm water collected in containment areas at bulk storage and hazardous waste facilities where the storm water becomes contaminated by direct contact with a spill or release of stored materials into the containment area. Such storm water should be handled properly by on-site treatment or hauling off-site for treatment and disposal.

b. Where a spill or release to a dry containment area occurs, the permittee shall institute procedures to clean up the spill in order to prevent contamination of any storm water, which subsequently collects in the containment area. Where these procedures are followed, collected storm water may be discharged; following visual inspection to assure that the storm water contains no unnatural turbidity, color, oil films, foams, settleable solids, or deposits.

c. Storage piles of salt used for deicing or other commercial or industrial purposes must be enclosed or covered to prevent exposure to precipitation (except for exposure resulting from adding or removing materials from the pile). Piles of salt do not need to be enclosed or covered where storm water from the pile is not discharged to waters of the state or the discharges from the piles are authorized under another permit.

SPECIAL CONDITION 21. Reporting: The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Special Condition No. 17 (b) (ii) (D) (ii) (4) and the inspections required by (b) (ii) (D) (iv) and of the Storm Water Pollution Prevention Plan of this permit. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s).

a. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.

b. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

c. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

d. Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Compliance Assurance Section
Annual Inspection Report
P.O. Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 22. Reopener: This permit may be modified to include different discharge limitations or other requirements which are consistent with applicable laws, regulations, or judicial orders. The Agency will public notice the permit modification.

SPECIAL CONDITION 23. Other Permits: The permittee shall apply for and obtain a U.S. Army Corps of Engineers Federal Clean Water Act Section 404 Permit for the discharge of dredge or fill material to waters of the United States.

SPECIAL CONDITION 24. SCMLCRA Exemption: The permittee shall obtain Surface Coal Mining Land Conservation and Reclamation Act [225 ILCS 720] exemption status from the Illinois Department of Natural Resources, Land Reclamation Division for economically beneficial uses of extracted coal in accordance with 62 Illinois Adm. Code Section 1702 or request modification of this permit.

SPECIAL CONDITION 25. Definitions:

"Acid Producing Material" ("APM") means material which when exposed to air and water is capable of causing drainage containing sulfuric acid. In determining whether material is acid producing consideration shall be given to the sulfur content of the material, the size and spatial distribution of pyritic compounds of sulfur, the neutralizing effect of surrounding intermixed materials and the quality of drainage produced by mining on sites with similar soils.

"Alkaline Mine Drainage" means mine drainage which, prior to drainage, has a pH equal to or greater than 6.0 and a total iron concentration of less than 10 mg/l.

"Best Management Practices" ("BMPs") means 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 plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Commencement of Mining" means the initial disturbance of soils associated with clearing, grading, or excavating activities or other mining activities.

"Cooling water" means mine process wastewater that is used for cooling of mining operations and is contaminated with heat. Heated effluent and cooling water that contains cleaning chemicals, pesticides or treatment chemicals used to clean or treat the piping, equipment or discharge of the cooling system are not covered by this permit.

"Cooling water outfalls" means point sources that discharge cooling waters or heated effluents.

"CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.)

"Director" means the Director of the Illinois Environmental Protection Agency or an authorized representative.

"EPCRA" means the Emergency Planning and Community Right-to-Know Act (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986)

"Final Stabilization" means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70% cover for unpaved areas and areas not covered by permanent structures has been established or equivalent stabilization measures (such as the use of riprap, gabions or geotextiles) have been employed.

"Heated effluent" means mine process wastewater contaminated with heat from mining operations.

"Large and Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

a) Located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of 40 CFR Part 122); or

b) Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of 40 CFR Part 122); or

c) Owned or operated by a municipality other than those described in paragraph (a) or (b) and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

"Mine Area or Mined Area" means the surface and subsurface land where mining has occurred or is occurring. The term does not include the unmined surface land directly above underground mine workings which is not otherwise disturbed by mining activities.

"Mine Process Wastewater or Process Wastewater" means waters used for or generated from: cooling of mining and mine processing equipment; mineral processing plants; cleaning mining and mining processing equipment; air emission controls (e.g, dust control); pit pumpage; pit overflows; mine dewatering; sedimentation ponds; or surface runoff from disturbed areas that contain mine refuse; chemical spillage; other wastes or acid producing materials.

"Mining" means the surface or underground extraction or processing of natural deposits of, gravel, sand or stone by the use of any mechanical operation or process. The term also includes the recovery or processing of the minerals from a mine refuse area. It does not include drilling for oil or natural gas.

"Mining Activities" means all activities on a facility which are directly in furtherance of mining, including activities before, during and after mining. The term does not include land acquisition, exploratory drilling, surveying and similar activities. The term includes, but is not limited to, the following:

a) Preparation of land for mining activities;
b) Construction of mine related facilities which could generate refuse, result in a discharge or have the potential to cause water pollution;

c) Ownership or control of a mine related facility;
d) Ownership or control of a coal storage yard or transfer facility;
e) Generation or disposal of mine refuse;
f) Mining;
g) Opening a mine;
h) Production of a mine discharge or non-point source mine discharge;
i) Surface drainage control; and
j) Use of acid-producing mine refuse.

"NOI" means notice of intent to be covered by this permit.

"Mine Outfalls" means point sources that discharge mine dewatering waters, process wastewaters, pit pumpage or pit overflows.

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, mine discharge, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

"Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA;; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

"Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4).

"Storm Water" means storm water runoff, snow melt runoff, surface runoff and drainage.

"Storm Water Discharges" means discharges that contain only storm water.

"Storm Water Associated with Industrial Activity at a Mining Site" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw materials storage areas at a mining site. The term does not include discharges from facilities or activities excluded from the NPDES program. For the categories of mining sites identified in subparagraphs (i), (ii) and (iii) of this subsection definition, the term includes, but is not limited to, storm water discharges from industrial plant yards; 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; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally or municipally owned or operated) that meet the description of the facilities listed in this paragraph (i), (ii) and (iii) include those facilities designated under 40 CFR 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity at a mining site" for purposes of this definition:

i) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(l)) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator;

ii) Construction activity including clearing, grading and excavation activities that disturbs land area at a mining site.

iii) Any asphalt plant, ready mix plant or industrial facility with SIC Code 29 or 32 located on the mining site.

"Waters" mean all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon the State of Illinois, except that sewers and treatment works are not included

except as specially mentioned; provided, that nothing herein contained shall authorize the use of natural or otherwise protected waters as sewers or treatment works except that in-stream aeration under Agency permit is allowable. Note that additional definitions are included in the permit Standard Conditions, Attachment H.

Construction Authorization

Authorization is hereby granted to the above designee to construct the mine and mine refuse area described as follows:

The facility is a new 564 acre industrial sand quarry, designated as Illinois Sand Company, LLC, Illinois Sand Company Mine, located in Sections 11 and 12, Township 33N, Range 2E of the 3rd P.M. in LaSalle County near Utica. Mining activity will initially occur on 185 acres of the property and will include the excavation of the sandstone deposit as well as crushing, washing, sizing and stockpiling operations. Mine operations also include the removal and stockpiling of overburden for later use in reclamation. Process water will be drawn from the sedimentation pond that will be constructed on-site. Stormwater will be directed around the facility from off-site sources with the use of constructed berms and drainage channels. On-site runoff will be directed to the sedimentation pond. Mine operations result in the discharge of storm water and groundwater seepage from outfall 001 at an average discharge rate of 0.144 MGD to an unnamed tributary of the Illinois River.

The abandonment plan consisting of the application documents received on February 27, 2012 and modifications dated May 22, 2013 shall be executed and completed in accordance with Rule 405.109 of Subtitle D: Mine Related Water Pollution.

Storm Water Pollution Prevention Plan: Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit. Discharging sedimentation ponds are not covered under the Storm Water Pollution Prevention Plan authorization, unless they discharge to a mine outfall specifically identified in a construction authorization under this permit.

Mining refuse which includes acid producing materials (APM) will be removed from the site in accordance with the plan documents dated May 22, 2013 detailing removal of excavated APM and permanent landfill disposal or other permitted use at an appropriate off-site location. Disposal of APM on-site shall not occur unless with prior approval of the Agency.

Groundwater monitoring for this facility will consist of the following:

i). Five (5) existing and/or proposed monitoring wells identified as Well numbers G-101, G-102, G-103, G-104, and G-105 as depicted in application documents dated May 22, 2013 and the monitoring well exhibit received by the Agency on June 19, 2013.

ii). Monitoring Well numbers G-101, G-102, G-103, G-104, and G-105 will monitor the effects of general mining related facilities.

iii). Groundwater monitoring requirements are outlined in Condition No. 5 of this Construction Authorization.

This Authorization is issued subject to the following condition(s). If such conditions require additional or revised facilities, satisfactory engineering plan documents must be submitted to the Agency for review and approval to secure issuance of a supplemental Authorization to Construct.

1. Termination of an NPDES discharge monitoring point or cessation of monitoring of a monitoring of an NPDES discharge is not authorized by this Agency until the permittee submits adequate justification to show what alternate treatment is provided or that untreated drainage will meet applicable effluent and water quality standards.

2. Plans and specifications of all treatment equipment being included as a part of the storm water management plan shall be included in the SWPPP.

3. Any modification of or deviation from the plans and specifications in the initial SWPPP requires amendment of the SWPPP.

4. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of land area must meet the conditions of this permit.

5. Groundwater monitoring requirements for Well numbers G-101, G-102, G-103, G-104, and G-105 are as follows:

   a. Ambient background monitoring shall be performed for all referenced wells. Such ambient monitoring shall consist of six (6) samples collected during the first year (approximately bi-monthly) following well installation but no later than during the first year of operation or disturbance to determine ambient background concentrations. The parameters to be sampled for background monitoring and the minimum reporting limits to be attained are listed in Table 2 below:

Table 2.

CONSTITUENT	UNITS	STANDARD
Antimony	mg/L	0.006
Arsenic	mg/L	0.010

Barium	mg/L	2.0
Beryllium	mg/L	0.004
Boron	mg/L	2.0
Cadmium	mg/L	0.005
Chloride	mg/L	200.0
Chromium	mg/L	0.1
Cobalt	mg/L	1.0
Copper	mg/L	0.65
Cyanide	mg/L	0.2
Fluoride	mg/L	4.0
Iron	mg/L	5.0
Lead	mg/L	0.0075
Manganese	mg/L	0.15
Mercury	mg/L	0.002
Molybdenum	mg/L	0.035
Nitrate	mg/L	10
Nickel	mg/L	0.1
Selenium	mg/L	0.05
Silver	mg/L	0.05
Sulfate	mg/L	400.0
Thallium	mg/L	0.002
Total Dissolved Solids (TDS)	mg/L	1,200
Vanadium	mg/L	0.049
Zinc	mg/L	5.0
pH	Standard units	6.5-9.0
Static Water Level	feet	

b. Following the ambient monitoring as required under item 5(a) above, quarterly monitoring for the contaminants identified in Table (3) below shall be completed and reported in accordance with the schedule identified in Special Condition No. (7) of this permit. In addition to reporting the values of each parameter listed below the permittee shall submit a potentiometric surface map for each quarter of data.

Table 3.

CONSTITUENT	UNITS	STANDARD
Chloride	mg/L	200.0
Iron	mg/L	5.0
Manganese	mg/L	0.15
Mercury	mg/L	0.002
Sulfate	mg/L	400.0
Total Dissolved Solids (TDS)	mg/L	1,200
pH	Standard units	6.5-9.0
Static Water Level	feet	

c. Following completion of active mining and reclamation, post-mining monitoring of the above referenced wells shall consist of six (6) samples collected during a 12-month period (approximately bi-monthly) to determine post-mining concentrations. Post-mining monitoring shall include the list of constituents identified in 5(a) above.

d. Groundwater monitoring reports shall be submitted to the Agency in accordance with Special Condition numbers 5 and 7 of this NPDES permit.

e. For ambient and post-mining monitoring done in accordance with items (a) and (c) above, within 90 days of completing the monitoring the permittee shall provide the Agency with a ground water quality report detailing a statistically valid representation of background and post mining water quality utilizing the following method. This method shall be used to determine the upper 95 percent confidence limit for each parameter listed above.

Should the Permittee determine that an alternate statistical method would be more appropriate based on the data being evaluated, the Permittee may request utilization of such alternate methodology. Upon approval from the Agency, the alternate methodology may be utilized to determine a statistically valid representation of background and/or post mining water quality.

This method should be used to predict the confidence limit when single groundwater samples are taken from each monitoring (test) well.

i. Determine the arithmetic mean X_b of each indicator parameter for the sampling period. If more than one well is used, an equal number of samples must be taken from each well.

$$X_b = \frac{X_1 + X_1 + \ldots X_n}{n}$$

Where:

X_b = Average value for a given chemical parameter b X

X_n = Values for each sample n X

n = the number of samples taken

ii. Calculate the background and/or post mining variance (S_b^2) and standard deviation (S_b) for each parameter using the values (X_n) from each sample of the well(s) as follows:

$$S_b{}^2 = \frac{X_1 - X_b{}^2 + X_2 - X_b{}^2 + \ldots + X_n - X_b{}^2}{n-1}$$

$$S_b = \overline{S_b{}^2}$$

iii. Calculate the upper confidence limit using the following formula:

$$CL = X_b \pm t \quad \overline{1 + 1/n}\,(S_b)$$

Where:

CL = upper confidence limit prediction
(upper and lower limits should be calculated for pH)

t = one-tailed t value at the required significance level and at n-1 degrees of freedom from Table 4
(a two-tailed t value should be used for pH)

iv. If the values of any routine parameter for any monitoring well exceed the upper confidence limit for that parameter, the permittee shall conclude that a statistically significant change has occurred at that well.

v. When some of the background and/or post mining values are less than the Method Detection Limit (MDL), a value of one-half (1/2) the MDL shall be substituted for each value that is reported as less than the MDL. All other computations shall be calculated as given above.

If all the background and/or post mining values are less than the MDL for a given parameter, the Practical Quantitation Limit (PQL), as given in 35 Ill. Adm. Code Part 724 Appendix I shall be used to evaluate data from monitoring wells. If the analytical results from any monitoring well exceed two (2) times the PQL for any single parameter, or if they exceed the PQLs for two or more parameters, the permittee shall conclude that a statistically significant change has occurred.

Table 4
Standard t-Tables Level of Significance

	t-values (one-tail)		t-values (two-tail)*	
Degrees of freedom	99%	95%	99%	95%

4	3.747	2.132	4.604	2.776
5	3.365	2.015	4.032	2.571
6	3.143	1.943	3.707	2.447
7	2.998	1.895	3.499	2.365
8	2.896	1.86	3.355	2.306
9	2.821	1.833	3.25	2.262
10	2.764	1.812	3.169	2.228
11	2.718	1.796	3.106	2.201
12	2.681	1.782	3.055	2.179
13	2.65	1.771	3.012	2.16
14	2.624	1.761	2.977	2.145
15	2.602	1.753	2.947	2.131
16	2.583	1.746	2.921	2.12
17	2.567	1.74	2.898	2.11
18	2.552	1.734	2.878	2.101
19	2.539	1.729	2.861	2.093
20	2.528	1.725	2.845	2.086
21	2.518	1.721	2.831	2.08
22	2.508	1.717	2.819	2.074
23	2.5	1.714	2.807	2.069
24	2.492	1.711	2.797	2.064
25	2.485	1.708	2.787	2.06
30	2.457	1.697	2.75	2.042
40	2.423	1.684	2.704	2.021

Adopted from Table III of “Statistical Tables for Biological Agricultural and Medical Research” (1947, R.A. Fisher and F. Yates).

* For pH only when required.