



# THE ILLINOIS-INDIANA SECTION OF AIPG Invites you to a Field Trip to Visit

## The US Silica Plant in Ottawa, Illinois

North America's largest silica production facility, mining fine-grained, nearly pure quartz sand from the St. Peter Sandstone

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## Nearby Starved Rock State Park

Lunch (on your own) & Hike through the Woods and Carved Canyons of the St. Peter Sandstone

**Friday, April 12, 2019 – 7:45 am to 5:00 pm**

**Sign up Early to Secure a Spot!**

**Due to mine restrictions, the tour is limited to 20 people.**

**Onsite parking is not available. Participants must enter the property in the bus provided by AIPG. Please consider the two options below:**

**Option 1: Meet at 7:45 AM at a central location in Chicago (TBD) and board a bus bound for US Silica. On the way, we will stop at a public parking area near the plant to pick up those who choose to drive separately, for flexibility in returning to Chicago, as indicated in Option 2.**

**Option 2: Drive separately to a designated public parking area near the plant (TBD) and board the bus for US Silica. You must be at the public parking area by 9:00 AM for the bus ride to the US Silica facility.**

**We expect to arrive at US Silica about 9:30 AM; the tour will end about 12:30 PM.**

Upon leaving the plant, the bus will return those who drove separately to their vehicles, then proceed to Starved Rock State Park for lunch and hiking as a group or on your own. Options include the Starved Rock Lodge restaurant, the lounge, or nearby Utica with many restaurants, such as the Cajun Connection, a local favorite. For the return trip to Chicago, our bus will depart the Starved Rock SP parking lot at 3:30 in the afternoon.

**Participants will earn 4.0 Professional Development Hours**

**Registration Fee: \$35, AIPG Student Members Free of Charge**

Registration Fee includes morning and afternoon snacks on the bus, an information booklet on the US Silica plant and a Geologic Field Trip Guidebook to Starved Rock SP.

**Contact Craig McCammack at (630) 936-0332 [cmccammack@v3co.com](mailto:cmccammack@v3co.com)  
Or Paul Hohbach at (312) 576 1332 [hohbachcu08@gmail.com](mailto:hohbachcu08@gmail.com)**

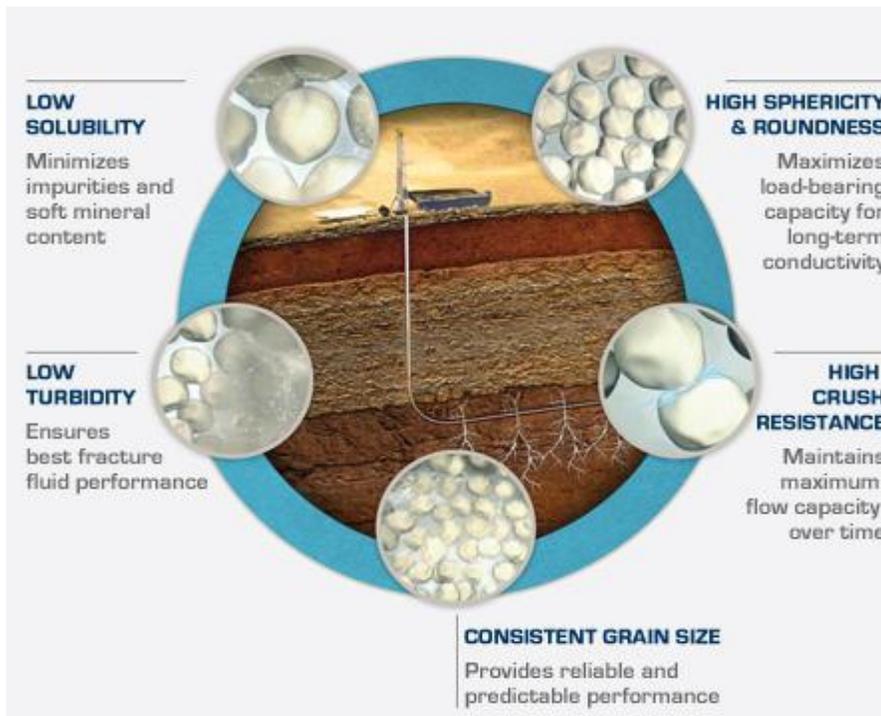
Please Make Checks Payable to "AIPG IL-IN Section" and mail them by April 8, 2019 to:  
Craig McCammack, 17 Bow Lane, Barrington Hills, IL 60010 by April 8, 2019

## AIPG FIELD TRIP SUMMARY AND SUPPLEMENTARY INFORMATION

**On Friday, April 12th, 2019**, members of the AIPG IL-IN Section and invited guests will tour the operations of US Silica at Ottawa, IL. After field tours of the open pit operations and selected reclamation sites, participants will be given a look at the United States's largest silica sand processing operation (described from USS's website below). In the afternoon, participants can visit nearby Starved Rock State Park to hike and compare natural outcroppings with those seen in the mine. A late lunch at the "Cajun Connection" is another option to add spice to this day's events!

**The growth of silica sand processing and capacity** in this discipline has enabled the United States to produce 100% of our current crude oil needs (except heavy crude for diesel). We are also poised to become an exporter of by-product natural gas to Europe!

**Two important technological advances** have enabled this historic development; one is North American deviation drilling technology, which allows carefully-controlled, horizontal boreholes to explore miles of oil and gas-bearing shale formations as thin as 3 to 5 feet thick. The second advance has occurred right here in western Illinois and southwestern Wisconsin; clean production of very high-quality, crush-resistant sands, delivered to the drill stem, allows fractures to be "propped" open with grains of sand, enabling oil and gas to flow to surface well heads (see diagram below). Some of the best quality sands come from IL-WI St. Peter Ordovician sandstones.



**Field trip participants** will have the opportunity to gain first hand insight into how these fine sands are produced and utilized in the shale gas revolution. We expect to tour the mine, plant and possibly reclaimed lands on US Silica property. Participants should finish the tour with an informed understanding of the importance and magnitude of this new technology that supports US-based oil and gas production.

## Ottawa, IL



### Overview

U.S. Silica's Ottawa plant is North America's largest silica production facility, mining fine grain, nearly pure quartz sandstone from the St. Peter Sandstone deposits. Ground and unground silica products from the Ottawa facility have a wide variety of applications, including glass production of all kinds, foundry and refractory sand, abrasives, polishes, paint and other fillers, filtration sand, frac sand, and cement testing sands.

### History

Silica sand mining began in Ottawa in the 1860s. At that time in Ottawa, glass manufacturing was one of the most important industries and the silica sand and glass manufacturing businesses grew simultaneously. The Ottawa facility became part of the U.S. Silica family in 1987, and succeeds in continually improving its processes, products and services, making them the leading producer of silica products, with an annual production rate of 2.2 million tons of silica annually.

# Locations



| U.S. Silica Locations                          |  | Shale Deposits                                              |  | Map Legend |  |
|------------------------------------------------|--|-------------------------------------------------------------|--|------------|--|
| <input checked="" type="checkbox"/> ISP Plants |  | <input checked="" type="checkbox"/> Shale Basins            |  |            |  |
| <input checked="" type="checkbox"/> Oil & Gas  |  | <input checked="" type="checkbox"/> Current Shale Plays     |  |            |  |
| <input checked="" type="checkbox"/> Transloads |  | <input checked="" type="checkbox"/> Prospective Shale Plays |  |            |  |
| <input checked="" type="checkbox"/> Offices    |  |                                                             |  |            |  |

# ILLINOIS STARVED ROCK STATE PARK

**Starved Rock State Park** is situated along the south bank of the Illinois River, less than 100 miles from Chicago. This beautiful park attracted over 2 million visitors last year to explore its scenic trails and canyons, dine in its historic Lodge and enjoy the panoramic views from tall bluffs which offer a unique contrast to the flatlands of Illinois. A hike to the top of a sandstone butte or a peaceful stroll to explore any of the 18 canyons gives each visitor a memorable experience. The backdrop for hiking is 18 canyons formed by glacial melt-water and stream erosion. They slice dramatically through tree-covered, sandstone bluffs for four miles at Starved Rock State Park.



**Although you can technically see waterfalls in 14 of the 18 canyons**, some of the most scenic waterfalls are found in St. Louis, French, Wildcat, Tonty, Ottawa and Kaskaskia canyons. The best times to see waterfalls are in the spring when the snow and ice melt or after a heavy rainfall.

