

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Surface
(Sand)

Fatal Falling, Rolling or Sliding Rock or Material of Any Kind Accident
May 1, 2025

Stout Excavating Group LLC (B7441)
San Antonio, Texas

at

Signal Peak Silica of Atascosa
SP Silica of Atascosa, LLC
Poteet, Atascosa County, Texas
ID No. 41-05317

Accident Investigators

Thomas Balch
Mine Safety and Health Specialist

Jason Hoermann
Mine Safety and Health Inspector

Steven Oates
Staff Assistant

Alex Moses
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
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1100 Commerce Street
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William O'Dell, District Manager

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OVERVIEW

On May 1, 2025, at 9:18 a.m., Alan Josue Castillo Herrarte, a 25-year-old contract heavy equipment operator with two years and seven months of mining experience, died after a section of the waste tailings pond retaining dam ruptured, allowing material to escape the impoundment. The material pushed the excavator he was operating off a bench, causing it to overturn and become engulfed in the material.

The accident occurred because the mine operator and contractor did not: 1) substantially construct and inspect the retaining dam at regular intervals, 2) conduct a workplace examination in Pit 2C before miners began work. Additionally, the mine operator did not use mining methods to maintain wall, bank, and slope stability.

GENERAL INFORMATION

SP Silica of Atascosa, LLC owns and operates the Signal Peak Silica of Atascosa (Signal Peak) mine. This mine is a surface industrial sand operation located in Poteet, Atascosa County, Texas. The mine employs 82 miners and operates two 12-hour shifts, seven days per week. The mine extracts industrial sand from the pit using excavators. The excavators load haul trucks that transport the industrial sand to a processing plant. The mine operator sells the finished product to the oil and gas industry. The mine operator contracted Stout Excavating Group LLC (Stout) to provide excavating and hauling services. Herrarte was employed by Stout.

The principal management officials at the Signal Peak mine at the time of the accident were:

David Hinojosa	Vice President of Operations
Steven Apperson	Vice President of Environmental, Health and Safety
Donnie Heath	Director of Environmental, Health and Safety
Clark Fritz	Director of Mining
Kevin Veit	Plant Manager

The principal management official for Stout at the time of the accident was:

Zack Ross	Foreman
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The Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection at this mine on March 19, 2025. The 2024 non-fatal days lost incident rate for the Signal Peak mine was 1.56, compared to the national average of 1.12 for mines of this type.

DESCRIPTION OF THE ACCIDENT

On May 1, 2025, at approximately 5:45 a.m., Herrarte began his shift and attended a safety meeting. At approximately 7:00 a.m., he began loading haul trucks with material in Pit 2C. At 9:12 a.m., movement of saturated material was observed progressing down the ramp from the retaining dam. Approximately 9:14 a.m., Herrarte called for Miguel Ruez, Equipment Operator for Stout, over the Citizen Band radio (CB). During this time, Hayden Knox, Equipment Operator for Stout, stated over the CB that haul truck 170 was hauling large chunks of clay. Knox identified the clay so it could be dumped at a waste location. Herrarte responded over the CB that material from above his work location was moving towards the bench, describing the material as pure mud.

At 9:16 a.m., Ross, who was operating a bulldozer outside the immediate area of Pit 2C, directed that any overburden loads be brought to him via the haul road, stating he would use it. Knox replied via CB that haul truck 170 was hauling the overburden material. Ross responded, saying not to not bother if the material was mud. Knox clarified that haul truck 170 was the one with the overburden material, and Ross instructed Nathaniel Macias, Haul Truck Driver for Stout, to take that load to the Phase Three dump area.

At 9:18 a.m., Ruez reported over the CB that material was being released in large clumps and water was coming out from the retaining dam. Ross asked for clarification and Ruez said it was in the area that had been discussed previously where all the material saturated with water had been progressing down the ramp. During this communication, Herrarte instructed the haul trucks to move forward. At that moment, the material from the retaining dam surged forward, pushing the excavator off the bench. The material caused the excavator to overturn onto its left side, and it engulfed the excavator.

At 9:23 a.m., Ross arrived at the accident location in the bulldozer he was operating and began using it to create a path to the excavator. At 9:38 a.m., another excavator was brought in to assist in removing material. Several miners began digging by hand to reach the excavator. At 9:40

a.m., Mike Harrison, Field Safety Specialist for Stout, notified Atascosa County Sheriff's office of the accident. Poteet Emergency Medical Services (PEMS) arrived at 9:56 a.m. Poteet Volunteer Fire Department (PVFD) arrived at 9:58 a.m. Once a path was cleared to the excavator, PVFD was able to access the cab and found Herrarte unresponsive. Judge Russell Prasifka, Justice of the Peace, Precinct 4, pronounced Herrarte deceased at 10:14 a.m.

INVESTIGATION OF THE ACCIDENT

At 9:42 a.m., Heath notified the Department of Labor National Contact Center (DOLNCC). The DOLNCC contacted Steven Oates, Staff Assistant. Oates notified Brett Barrick and Ronnie Free, Assistant District Managers. Barrick assigned Thomas Balch, Mine Safety and Health Specialist, as the lead investigator. Free sent Jason Hoermann, Mine Safety and Health Inspector, to the mine to assist with the investigation.

At 1:45 p.m., Balch arrived on site and issued an order under the provisions of Section 103(k) of the Mine Act to ensure the safety of the miners and the preservation of evidence. Hoermann arrived at 1:58 p.m. Investigators inspected the release location in the retaining dam and accident site. Stout developed, and investigators reviewed, the plan for recovering Herrarte. At approximately 4:45 p.m., a secondary sloughing event occurred near the release location in the retaining dam, prompting Balch to remove personnel until further review could be conducted. At approximately 6:15 p.m., Oates arrived and assisted with the recovery planning. Signal Peak, Stout, and MSHA personnel reviewed mine maps and operational plans. Recovery efforts resumed at 8:15 p.m., with a contingency to halt in the event of inclement weather. On May 2, 2025, at approximately 5:00 a.m., Herrarte was recovered from the excavator.

The MSHA accident investigation team conducted an examination of the accident scene; interviewed miners, mine management, contractors, and contractor management; and reviewed conditions and work procedures relevant to the accident. See Appendix A for a list of persons who participated in the investigation.

DISCUSSION

Location of the Accident

At the time of the incident, the excavator was positioned on a bench in Pit 2C and was being used to load haul trucks with material from the ramp (see Appendices B and C). The bench Herrarte was working off was approximately eight feet high.

Ground Conditions

MSHA Technical Support conducted an investigation at the Signal Peak mine to examine the ground conditions at the south end of the mine property near the release location in the retaining dam. Pit 1 (waste tailings pond) was developed near the south end of the mine property during 2018. Fritz indicated Pit 1 was approximately 60 feet deep. There is no survey data or other information available for Pit 1 development. Based on the historical Google Earth Photo (GEP) images, Pit 1 appeared deeper along the southern end given the highwall that was evident in the images (see Appendix D). After Pit 1 excavation was completed, it was used for tailings disposal. The waste tailings pond had an approximate surface area of 18 acres. Haul roads

extended around the entire perimeter of the waste tailings pond, including the “Pit 3 Ramp” along the west side and “2 Ponds Road” along the east/southeast side.

The mine operator initiated capping of the waste tailings pond sometime in 2021, as evident by the GEP image dated October 29, 2021, showing the capping in progress with approximately seven acres of exposed tailings remaining. While examining the cap, MSHA Technical Support observed an uncapped area of exposed tailings near the center of the cap, approximately 20 feet wide by 80 feet long, surrounded by berms of material.

Fritz stated the cap was approximately 25 feet thick. The center of the waste tailings pond reached an elevation of 730 feet. The cap surface slopes down towards the north, west, and south highwalls with elevations ranging between 700 to 705 feet along the edge of each of these highwalls. The tailings flowed out of the south end of the waste tailings pond, and the retaining dam release location had an elevation of 684 feet. This appears to be directly over top of the southern end of the waste tailings pond. The excavator’s final position in Pit 2C was 257 feet southwest of the release location.

Using the surface area and these estimated flow depths, the corresponding volume of tailings that was released ranged between 2.2 and 3.3 million gallons. A portion of the cap subsided behind the release location (immediately to the north). This formed a depression in the cap that was approximately 200 feet wide (east-west) by 400 feet long (north-south) and had a bottom elevation of 700 feet.

Investigators determined through interviews and evidence gathered that the mine operator and contractor had knowledge of the location of the waste tailings pond. This information was not conveyed to the miners working in the area.

The mining method utilized by the mine operator and contractor resulted in a retaining dam being constructed insufficient to support the contents of the adjacent tailings pond. Indicators of seepage were present two days prior to the failure. Neither the mine operator nor contractor conducted examinations of the area. Investigators determined that the mine operator and the contractor did not substantially construct and inspect the retaining dam at regular intervals, which contributed to the accident.

Weather

The weather at the time of the accident was 77 degrees Fahrenheit and cloudy. The mine site had received rain in the previous days that collected in the uncapped portion of the waste tailings pond. Investigators could not determine if the recent rain contributed to the failure of the retaining dam.

Equipment Involved

The excavator involved in the accident was a John Deere Model 870. Investigators were unable to examine the excavator due to the excavator being engulfed by material. Based on available in-cab video evidence from the mobile equipment, the release of material from the retaining dam occurred approximately 200 feet upslope from the excavator.

Mining Method

The mine operator was mining the last remaining usable material in this area in preparation of creating a new tailings pond. The mine operator did not use mining methods to maintain wall, bank, or slope stability. Investigators determined that this contributed to the accident.

The area north of the excavator was an incised pit that had been mined out, leaving natural ground around it. When it was filled with waste, the boundaries were not identified with GPS coordinates or markers. Miners were sampling the areas around the waste tailings pond and the ramp to determine the quality of the material. There were no boundary markers of the waste tailings pond, only green stakes that miners identified as good material. Water was observed leaking out of the pond in the affected area on April 26 and 27, 2025, and water was observed running out of the pond in the affected area on April 30, 2025. Stout management observed water coming out of the affected area but did not report it or document it on the workplace examination record.

Examinations

The mine operator did not examine each working place at least once per shift before miners began work for conditions which may adversely affect safety and health. A review of Stout's workplace examination records indicated that a record was created at 5:44 a.m. and completed at 5:45 a.m. During interviews, Ross stated he arrived at the mine at 5:40 a.m. and performed the workplace examination from his truck while in the contractor parking area. The record did not indicate any hazards. The retaining dam had visual indicators of a potential hazard, including water and mud present on multiple shifts identified by miners. The mine operator and the contractor did not withdraw the miners from the area, take prompt corrective actions, and document the conditions found. Investigators determined that the mine operator and the contractor did not conduct a workplace examination in Pit 2C before miners began work, which contributed to the accident.

Training and Experience

Herrarte had two years and seven months of mining experience, all with Stout at various sites. Herrarte completed new miner training on October 18, 2022, and received annual refresher training on October 1, 2024. Investigators determined Herrarte received all training in accordance with MSHA Part 46 training regulations.

ROOT CAUSE ANALYSIS

The accident investigation team conducted an analysis to identify the underlying causes of the accident. The team identified the following root causes, and the mine operator and contractor implemented the corresponding corrective actions to prevent a recurrence.

1. Root Cause: The mine operator and contractor did not substantially construct and inspect the retaining dam at regular intervals.

Corrective Actions: To address the identified deficiencies, the mine operator and contractor have developed and implemented comprehensive training programs for personnel responsible for inspecting retaining dams at regular intervals. Additionally, they have formulated,

implemented, and trained miners on a robust procedure for mining methods that incorporates geotechnical and engineering recommendations for the construction of retaining dams. Furthermore, the mine operator will construct a buttress based on current geotechnical and engineering recommendations to stabilize the area where the dam failure occurred.

2. Root Cause: The mine operator and contractor did not conduct a workplace examination in Pit 2C before miners began work.

Corrective Actions: The mine operator and contractor developed and implemented training programs for people conducting examinations of working places.

3. Root Cause: The mine operator did not use mining methods to maintain wall, bank, and slope stability.

Corrective Actions: To rectify this issue, the mine operator has developed, implemented, and conducted training for miners on a detailed procedure for mining methods. This procedure includes adherence to geotechnical and engineering recommendations, thereby ensuring proper maintenance of wall, bank, and slope stability in places where people work or travel in the performance of their assigned task in the mining operations.

CONCLUSION

On May 1, 2025, at 9:18 a.m., Alan Josue Castillo Herrarte, a 25-year-old contract heavy equipment operator with two years and seven months of mining experience, died after a section of the waste tailings pond retaining dam ruptured, allowing material to escape the impoundment. The material pushed the excavator he was operating off a bench, causing it to overturn and become engulfed in the material.

The accident occurred because the mine operator and contractor did not: 1) substantially construct and inspect the retaining dam at regular intervals, 2) conduct a workplace examination in Pit 2C before miners began work. Additionally, the mine operator did not use mining methods to maintain wall, bank, and slope stability.

Approved By:

William O'Dell
District Manager

Date

ENFORCEMENT ACTIONS

1. A 103(k) order was issued to SP Silica of Atascosa, LLC.

A fatal accident occurred on May 1, 2025, at 9:18 a.m. This order is being issued under the authority of the Federal Mine Safety and Health Act of 1977, under Section 103(k) to insure the safety of all persons at the mine and requires the operator to obtain the approval of an authorized representative of MSHA of any plan to recover any person in the mine or to recover the mine or affected area. This order prohibits any activity in the affected area. The operator is reminded of the obligation to preserve all evidence that would aid in investigating the cause or causes of the accident in accordance with 30 CFR 50.12.

2. A 104(d)(1) citation was issued to SP Silica of Atascosa, LLC for a violation of 30 CFR 56.20010.

On May 1, 2025, a miner was fatally injured at this mine when a retaining dam failed next to a work area where trucks were being loaded. The mine operator did not ensure the retaining dam of a partially capped tailings pond was substantially constructed and inspected at regular intervals. Miners were assigned to work in the area where failure occurred resulting in an excavator operator becoming engulfed in the release of the tailings materials. The mine operator engaged in aggravated conduct constituting more than ordinary negligence. This violation is an unwarrantable failure to comply with a mandatory standard.

3. A 104(d)(1) citation was issued to Stout Excavating Group LLC for a violation of 30 CFR 56.20010.

On May 1, 2025, a miner was fatally injured at this mine when a retaining dam failed next to a work area where trucks were being loaded. The contractor did not ensure the retaining dam of a partially capped tailings pond was substantially constructed and inspected at regular intervals. Miners were assigned to work in the area where failure occurred, resulting in an excavator operator becoming engulfed in the release of the tailings materials. The contractor engaged in aggravated conduct constituting more than ordinary negligence. This violation is an unwarrantable failure to comply with a mandatory standard.

4. A 104(d)(1) order was issued to SP Silica of Atascosa, LLC for a violation of 30 CFR 56.18002.

On May 1, 2025, a miner was fatally injured at this mine when a retaining dam failed next to a work area where trucks were being loaded. The mine operator did not examine each working place at least once per shift before miners began work for conditions which may adversely affect safety and health. A section of the retaining dam had visual indicators of a potential hazard: water and mud were present on multiple shifts and identified by miners. The mine operator did not withdraw the miners from the area, take prompt corrective actions, and document the conditions found. Miners were assigned to work in the area where failure occurred, resulting in an excavator operator becoming engulfed in the release of the tailings materials. The mine operator engaged in aggravated conduct constituting more than ordinary

negligence by failing to ensure hazardous ground conditions were examined. This violation is an unwarrantable failure to comply with a mandatory standard.

5. A 104(d)(1) order was issued to Stout Excavating Group LLC for a violation of 30 CFR 56.18002.

On May 1, 2025, a miner was fatally injured at this mine when a retaining dam failed next to a work area where trucks were being loaded. The contractor did not examine each working place at least once per shift before miners began work for conditions which may adversely affect safety and health. A section of the retaining dam had visual indicators of a potential hazard: water and mud were present on multiple shifts and identified by miners. The contractor did not withdraw the miners from the area, take prompt corrective actions, and document the conditions found. Miners were assigned to work in the area where failure occurred, resulting in an excavator operator becoming engulfed in the release of the tailings materials. The contractor engaged in aggravated conduct constituting more than ordinary negligence by failing to ensure hazardous ground conditions were examined. This violation is an unwarrantable failure to comply with a mandatory standard.

6. A 104(d)(1) order was issued to SP Silica of Atascosa, LLC for a violation of 30 CFR 56.3130.

On May 1, 2025, a miner was fatally injured at this mine when the mine operator's mining methods resulted in a retaining dam failure. The mine operator did not ensure proper mining methods were used to maintain wall, bank, and slope stability. The mine operator engaged in aggravated conduct constituting more than ordinary negligence by knowingly disregarding hazards associated with improper mining methods. This violation is an unwarrantable failure to comply with a mandatory standard.

APPENDIX A – Persons Participating in the Investigation

SP Silica of Atascosa, LLC

David Hinojosa	Vice President of Operations
Steven Apperson	Vice President of Environmental, Health and Safety
Donnie Heath	Director of Environmental, Health and Safety
Clark Fritz	Director of Mining
Kevin Veit	Plant Manager
Caleb Tarosky	Environmental, Health and Safety Manager
Irene Galavis	Quality Control
Jose Acosta	Equipment Operator

Stout Excavating Group LLC

Jordan Schaaf	Superintendent
Jeff Murrery	Health and Safety Manager
Mike Harrison	Field Safety Specialist
Diego Ortiz	Foreman
Zachariah Ross	Foreman
Nathaniel Macias	Haul Truck Driver
Samuel Alverado	Equipment Operator
Eddie Barrera	Equipment Operator
Bryan Castillo	Equipment Operator
Edgar Delfin	Equipment Operator
Javier Garcia	Equipment Operator
Humberto Guzman	Equipment Operator
Justin Hernandez	Equipment Operator
Hayden Knox	Equipment Operator
Mathew Myer	Equipment Operator
Henry Ortiz	Equipment Operator
Jeronimo Robles	Equipment Operator
Miguel Ruez	Equipment Operator
Jose Segura Jr.	Equipment Operator
Jesse Zuniga	Equipment Operator

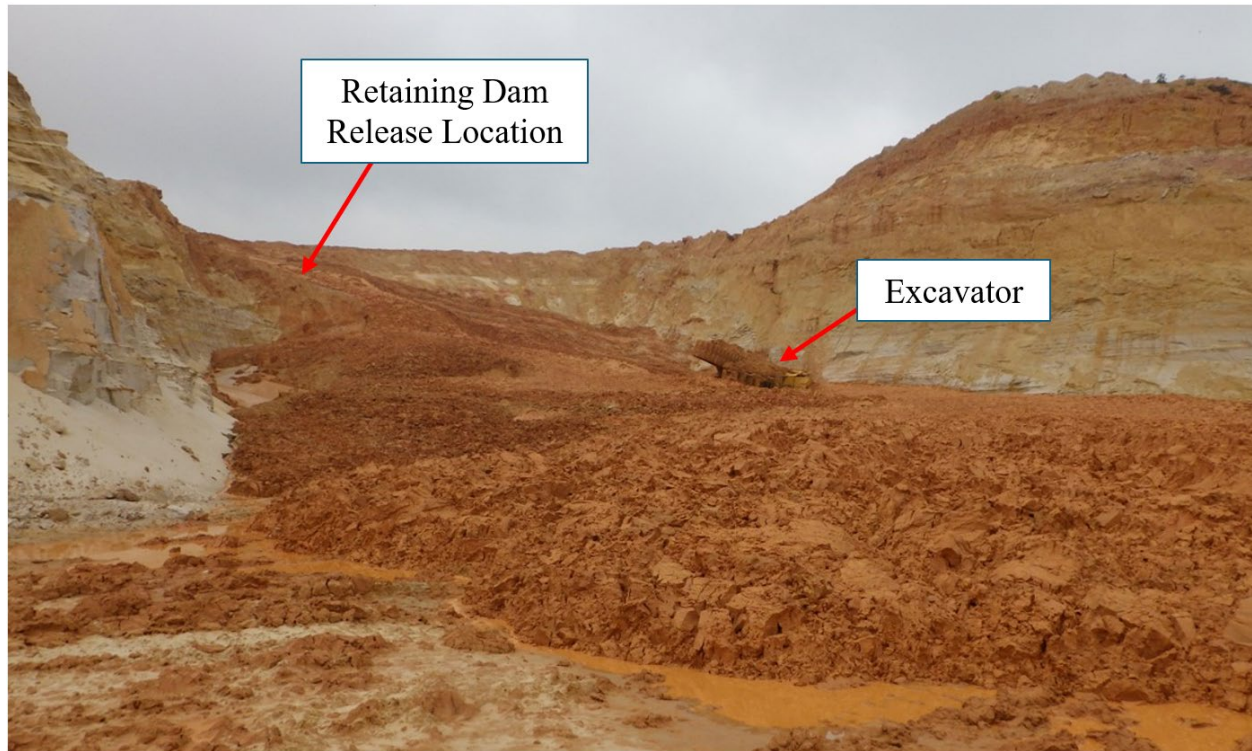
Mine Safety and Health Administration

William O'Dell	District Manager
Brett Barrick	Assistant District Manager
Steven Oates	Staff Assistant
Thomas Balch	Mine Safety and Health Specialist
Jason Hoermann	Mine Safety and Health Inspector
Alex Moses	Mine Safety and Health Inspector
Robert Brazer	Civil Engineer, Technical Support
Stanley Schaeffer	Civil Engineer, Technical Support
Steven Vamossy	Civil Engineer, Technical Support

APPENDIX B – Mine Map



APPENDIX C – Photo of Accident Area



APPENDIX D – Historical Photo Tailings Pond Prior to Accident



Google Earth historical photo year 2020