



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

NOTICE OF INSPECTION RIGHTS

FACILITY INFORMATION	ADEQ INFORMATION
Facility Name (Customer): January Adit (Norton Mine)	Date/Time of Inspection: September 27, 2023 0925
Facility Location (Place): 749 Harshaw Rd., Patagonia, AZ 85624	County: Santa Cruz
	Inspector: Steven Saeed
Mailing Address: 1860 E River Rd Ste 200, Tucson, AZ 85718	Telephone: (520) 419-7322
	Accompanied by: None
Responsible Party: South32 Hermosa Inc.	ADEQ Follow-up Contact: Leigh Padgitt, Surface Water Inspections and Compliance Unit
On-Site Representative: Kara Hass	
Telephone: (505) 947-1738	
Title: Principal Environment	Title: Manager
E-mail: Kara.haas@south32.net	Telephone: 602-291-2710

The ADEQ representative(s) identified above were present at the above address on the above listed date and time. Upon entry to the premises, the ADEQ representative(s) met with me, presented photo identification indicating that they are ADEQ employees and explained:

That the purpose of the inspection is to determine:

- Compliance with Title 49 of the Arizona Revised Statutes, Title 18 of the Arizona Administrative Code* and/or:
 Arizona Revised Statutes: Title 49 Chapter 2 et seq. Article 3.1
 Arizona Administrative Code: Title 18 Chapter 9 et seq. Article 9
 Permit/Agreement Number:
- Qualification for a license issued pursuant to:
 Arizona Revised Statutes: Title 49, Chapter 2, Article 9.
 Arizona Administrative Code: Title 18 Chapter 5 Article 1 et seq.
- That this inspection is conducted pursuant to the authority granted in Arizona Revised Statutes § 49-104(B)(8) and/or:**
 Arizona Revised Statutes: § Title 41 Chapter 6 Section 1009, 49-203(B)(1)
 Arizona Administrative Code: Title 18 Chapter 9 Article 1 Section 110.
 Permit/Agreement Number:
- That the state shall not be barred by the statutes of limitations of actions, according to A.R.S. § 12-510, except as provided in A.R.S. § 12-529 concerning certain claims based on navigability of watercourses. According to 28 U.S.C. § 2462, the U.S. government must commence an action within 5 years after the date the claim first accrued.
- The applicability of the Small Business Bill of Rights pursuant to Arizona Revised Statutes § 41-1001(21).
- That the fee for this inspection is: None

*The Arizona Revised Statutes (A.R.S.) can be found on the internet: www.azleg.state.az.us/ArizonaRevisedStatutes.asp while the Arizona Administrative Code (A.A.C.) can be found at www.azsosaz.gov/public_services/Table_of_Contents.htm.

While I have the right to refuse to sign this form, the ADEQ representatives may still proceed with the inspection.

- I have read this notice and discussed any questions or concerns with the ADEQ representatives and I have received the Small Business Bill of Rights.

Signature of Regulated Person or Authorized On-Site Representative

Date

- The regulated person or authorized on-site representative refused to sign.

Name of Regulated Person or Authorized On-Site Representative

Title

- The regulated person or authorized on-site representative was not present at the facility.

Signature of ADEQ Representative

Date

INSPECTION RIGHTS

- I understand that I can accompany the ADEQ representative(s) on the premises, except during confidential interviews.
- I understand that I have right, on request, to:
- Copies of any original documents taken during the inspection, and that ADEQ will provide copies of those documents at ADEQ's expense;
 - A split of any samples taken during the inspection, if the split of the samples would not prohibit an analysis from being conducted or render an analysis inconclusive;
 - Copies of any analysis performed on samples taken during the inspection and that ADEQ would provide copies of this analysis at ADEQ's expense;
 - Copies of any documents to be relied on to determine compliance with licensure or regulatory requirements if the agency is otherwise permitted by law to do so.
- I also understand that:
- Each person who is interviewed by an ADEQ inspector during the inspection must be informed that:
 - (1) participation in an interview is voluntary, unless legally compelled to participate;
 - (2) they have the right to have an attorney or other experts in their field present during the interview to represent or advise the regulated person;
 - (3) the ADEQ inspector may not take any adverse action or treat less favorably or draw any inference as a result of the regulated person's decision to be represented by an attorney or advised by any other experts in their field;
 - (4) statements made by the person may be included in the inspection report; and
 - (5) they have the right to 24 hours to review and revise any written witness statements drafted by the ADEQ inspector on which the ADEQ inspector requests that person's signature.
 - If the information and documents provided to the ADEQ inspector become a public record, trade secrets and proprietary and confidential information may be redacted, unless the information and documents are not confidential pursuant to statute.
 - Each person interviewed during the inspection must be informed that statements made by the person may be included in the inspection report;
 - Each person whose conversation is tape recorded during the inspection must be informed that the conversation is being tape recorded;
 - If an administrative order is issued or a permit decision is made based on the results of the inspection, I have the right to appeal that administrative order or permit decision. I understand that my administrative hearing rights are set forth in Arizona Revised Statutes § 41-1092 *et seq.* and my rights relating to an appeal of a final agency decision are found in Arizona Revised Statutes § 12-901 *et seq.*;
 - If I have any questions or concerns about this inspection, I may contact the person listed as the ADEQ Follow-up Contact on the front of this form; ADEQ's Ombudsman at (602) 771-4322 (toll free inside Arizona at (800) 234-5677, extension 7714322); or the Arizona Ombudsman-Citizens' Aid office at (602) 277-7292 (toll free at (800) 872-2879);
 - If I have any questions concerning my rights to appeal an administrative order or permit decision, I may contact ADEQ's Administrative Counsel Edwin Slade at (602) 771-2242 (toll free inside Arizona at (800) 234-5677, extension 7712242).

Arizona Revised Statutes: Small Business Bill of Rights

41-1001.01. Regulatory bill of rights; small businesses

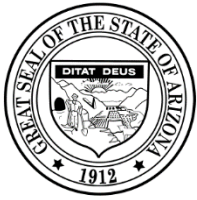
- A. To ensure fair and open regulation by state agencies, a person:
1. Is eligible for reimbursement of fees and other expenses if the person prevails by adjudication on the merits against an agency in a court proceeding regarding an agency decision as provided in section 12-348.
 2. Is eligible for reimbursement of the person's costs and fees if the person prevails against any agency in an administrative hearing as provided in section 41-1007.
 3. Is entitled to have an agency not charge the person a fee unless the fee for the specific activity is expressly authorized as provided in section 41-1008.
 4. Is entitled to receive the information and notice regarding inspections and audits prescribed in section 41-1009.
 5. May review the full text or summary of all rulemaking activity, the summary of substantive policy statements and the full text of executive orders in the register as provided in article 2 of this chapter.
 6. May participate in the rulemaking process as provided in articles 3, 4, 4.1 and 5 of this chapter, including:
 - (a) Providing written comments or testimony on proposed rules to an agency as provided in section 41-1023 and having the agency adequately address those comments as provided in section 41-1052, subsection D, including comments or testimony concerning the information contained in the economic, small business and consumer impact statement.
 - (b) Filing an early review petition with the governor's regulatory review council as provided in article 5 of this chapter.
 - (c) Providing written comments or testimony on rules to the governor's regulatory review council during the mandatory sixty-day comment period as provided in article 5 of this chapter.
 7. Is entitled to have an agency not base a licensing decision in whole or in part on licensing conditions or requirements that are not specifically authorized by statute, rule or state tribal gaming compact as provided in section 41-1030, subsection B.
 8. Is entitled to have an agency not make a rule under a specific grant of rulemaking authority that exceeds the subject matter areas listed in the specific statute or not make a rule under a general grant of rulemaking authority to supplement a more specific grant of rulemaking authority as provided in section 41-1030, subsection C.
 9. May allege that an existing agency practice or substantive policy statement constitutes a rule and have that agency practice or substantive policy statement declared void because the practice or substantive policy statement constitutes a rule as provided in section 41-1033.
 10. May file a complaint with the administrative rules oversight committee concerning:
 - (a) A rule's, practice's or substantive policy statement's lack of conformity with statute or legislative intent as provided in section 41-1047.
 - (b) An existing statute, rule, practice alleged to constitute a rule or substantive policy statement that is alleged to be duplicative or onerous as provided in section 41-1048.
 11. May have the person's administrative hearing on contested cases and appealable agency actions heard by an independent administrative law judge as provided in articles 6 and 10 of this chapter.
 12. May have administrative hearings governed by uniform administrative appeal procedures as provided in articles 6 and 10 of this chapter and may appeal a final

administrative decision by filing a notice of appeal pursuant to title 12, chapter 7, article 6.

13. May have an agency approve or deny the person's license application within a predetermined period of time as provided in article 7.1 of this chapter.
14. Is entitled to receive written notice from an agency on denial of a license application:
 - (a) That justifies the denial with references to the statutes or rules on which the denial is based as provided in section 41-1076.
 - (b) That explains the applicant's right to appeal the denial as provided in section 41-1076.
15. Is entitled to receive information regarding the license application process before or at the time the person obtains an application for a license as provided in sections 41-1001.02 and 41-1079.
16. May receive public notice and participate in the adoption or amendment of agreements to delegate agency functions, powers or duties to political subdivisions as provided in section 41-1026.01 and article 8 of this chapter.
17. May inspect all rules and substantive policy statements of an agency, including a directory of documents, in the office of the agency director as provided in section 41-1091.
18. May file a complaint with the office of the ombudsman-citizens aide to investigate administrative acts of agencies as provided in chapter 8, article 5 of this title.
19. Unless specifically authorized by statute, may expect state agencies to avoid duplication of other laws that do not enhance regulatory clarity and to avoid dual permitting to the extent practicable as prescribed in section 41-1002.
20. May have the person's administrative hearing on contested cases pursuant to title 23, chapter 2 or 4 heard by an independent administrative law judge as prescribed by title 23, chapter 2 or 4.

B. The enumeration of the rights listed in subsection A of this section does not grant any additional rights that are not prescribed in the sections referenced in subsection A of this section.

C. Each state agency that conducts audits, inspections or other regulatory enforcement actions pursuant to section 41-1009 shall create and clearly post on the agency's website a small business bill of rights. The agency shall create the small business bill of rights by selecting the applicable rights prescribed in this section and section 41-1009 and any other agency-specific statutes and rules. At the request of an authorized on-site representative of the regulated small business, the agency shall provide a written document of the small business bill of rights. In addition to the rights listed in this section and section 41-1009, the agency notice of the small business bill of rights shall include the process by which a small business may file a complaint with the agency employees who are designated to assist members of the public or regulated community pursuant to section 41-1006. The notice must provide the contact information of the agency's designated employees. The agency notice must also state that if the regulated person has already made a reasonable effort with the agency to resolve the problem and still has not been successful, the regulated person may contact the office of ombudsman-citizens aide.



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



SURFACE WATER PROTECTION (SWP) - INSPECTION REPORT

Facility Name (PLACE): January Adit (Norton Mine) Facility Type: Mine or Mill Site Permit Number (LTF): 85604 Alternative Permit ID: AZ0026387 County: Santa Cruz	Inspection ID: 430750 Type of Inspection: <input checked="" type="checkbox"/> Announced Compliance Inspection <input type="checkbox"/> Unannounced Compliance Inspection <input type="checkbox"/> Complaint Inspection - Complaint ID: <input type="checkbox"/> Follow-Up Inspection:
Physical Location: 749 Harshaw Rd. City, State, Zip: Patagonia, AZ, 85624 Mailing Address: 1860 E River Rd Ste 200 City, State, Zip: Tucson, AZ, 85718	Lead Inspector (Author): Steven Saeed Inspector Email: Saeed.steven@azdeq.gov Inspector Phone: (520) 419-7322 Additional Inspectors: None
Permittee (CUSTOMER): South32 Hermosa Inc. Address: 1860 E River Rd Ste 200 Phone: (803) 235-5563 Email: Jpappas@arizonamining.com	Inspection Date: September 27, 2023 Weather: Sunny Start Time: 0925 End Time: 1530
Results of Inspection: <input checked="" type="checkbox"/> No alleged deficiencies were noted during the course of the inspection. No ADEQ action will result from this inspection. <input type="checkbox"/> Alleged deficiencies were noted during the course of the inspection and all deficiencies were corrected by the close of business on the final day of inspection. No ADEQ action will result from this inspection. <input type="checkbox"/> Alleged deficiencies were noted during the course of the inspection. Additional correspondence regarding this inspection may be forthcoming. If applicable, ADEQ documents its initial determination that the alleged deficiencies are: <input type="checkbox"/> Committed intentionally. <input type="checkbox"/> Not correctable within a reasonable period of time as determined by the agency. <input type="checkbox"/> Evidence of a pattern of noncompliance as demonstrated by alleged deficiencies previously identified in an inspection report or other written notice at the same premises. <input type="checkbox"/> A significant risk to any person, the public health, safety or welfare or the environment.	
Inspection Report Delivery Method: Email from ADEQ office Inspection Report Issued Date: September 27, 2023	
Attachment(s): Notice of Inspection Rights, Small Business Bill of Rights, Program Checklist(s), Photograph Log, Exit Debriefing	

Attendee Name	Title (include license#)	Company/Agency	Attendance
Kara Haas	Principal Environment	South32	Opening; Inspection; Debrief.
Matt Owens	Environmental Specialist	South32	Opening; Inspection; Debrief.

Introduction This inspection was a routine inspection of the January Mine Hermosa Project for compliance with the Arizona Pollutant Discharge Elimination System (AZPDES) Individual Permit (Permit No. AZ0026387) issued to South32 Hermosa Inc. This inspection was conducted physically on-site. The Arizona Department of Environmental Quality (ADEQ) sent the Notice of Inspection Rights (NOIR), the ADEQ Surface Water Protection (SWP) Universal Inspection Report template, the AZPDES program checklist, and the Small Business Bill of Rights via email to Brent Musselwhite, Director – Environment and Permitting, and Kara Haas, Principal Environment, on September 19, 2023. On the day of the inspection, I met Kara Haas and Matt Owens, Environmental Specialist, (hereinafter the “onsite representatives”) at 301 W. McKeown Avenue, Patagonia, AZ 85624 (the location of the responsible party’s Patagonia Office).
Facility/Site Description/Treatment Process? This facility is a polymetallic mineral deposit mining operation owned by South32 Hermosa Inc. South32 Hermosa Inc. was previously known as Arizona Minerals Inc. (AMI). ADEQ was notified of the name change on February 14, 2023 and updated the permit accordingly. Some of the historical mining operations are on property previously owned by ASARCO LLC (ASARCO). An AZPDES permit was previously issued for this site to ASARCO (AZ0025054) on December 1, 2003, for discharges of treated mine drainage to Alum Gulch from a constructed wetland treatment system at two locations. The wetland treatment system was unable to achieve the applicable water quality standards, and permit AZ0025054 was not renewed.

South32 Hermosa Inc. acquired portions of the former ASARCO property and engaged in remediation of historic site activities under ADEQ's Voluntary Remediation Program (VRP). Activities include capturing and treating mine impacted water from the January Adit, moving historic tailings onto a new lined tailings storage facility, and capturing and treating the water collected in the Underdrain Collection Pond (UDCP).

South32 Hermosa Inc. is conducting exploration activities. This will be accomplished through explorations shafts/declines, which will require dewatering the local aquifer in the vicinity of the shafts/declines to allow for safe advancement. The VRP and exploration activities will require the continued use of water treatment plant 1 (WTP1) and water treatment plant 2 (WTP2).

Discharge from WTP1 was authorized in the 2018 AZPDES permit. WTP1 treats mine drainage water (including water from the January Adit), stormwater runoff and seepage collected from the Tailings Storage Facility (TSF) in the UDCP. South32 Hermosa Inc. plans to continue to reuse water treated by WTP1 onsite, but 100% reuse onsite may not be possible at all times, particularly after precipitation events that raise water levels in the January Adit and increase the volume of water reporting to the UDCP. If 100% reuse is not possible, effluent from WTP1 may be discharged from Outfall 001 to Alum Gulch or routed to WTP2. Since issuance of the 2018 permit, WTP1 was upgraded to provide additional removal of total dissolved solids (TDS), sulfates, and selenium.

WTP1:

WTP1 uses four steps for treatment. In step 1, suspended solids (metals) are removed through the addition of ferric compounds, flocculant, and sulfide reagents (and with pH adjustment, if required). Ultrafiltration is used to further clarify the solution. In step 2, the sulfate concentration is reduced using nanofiltration (NF) and precipitation (using ferric chloride and lime). In step 3, the selenium is reduced using a selenium electroreduction circuit (ERC) with an iron anode. In step 4, the feed from the ERC is then blended with the NF permeate, resulting in a blended water with reduced sulfate and selenium levels. The treated water can be directed to the moving bed biological reactor (MBBR) to oxidize ammonia (if present). Treated water will be reused on site, discharge from Outfall 001 to Alum Gulch, or routed to WTP2 for further treatment. WTP1 will produce residual solids. The solid residuals will be clarified from solution, filtered (i.e. dewatered by filter press), and deposited at the geomembrane-lined TSF, as authorized by the facility's APP.

WTP2:

WTP2 uses a two-step treatment process. Treatment techniques consist of total suspended solid (TSS) and metal removal circuit sand ballasted clarification, multimedia filtration, thickener, sludge filter press, and fluid management systems. Step 1 treatment removes suspended solids through the addition of ferric compounds, flocculant, and sulfide reagents (and with pH adjustment, if required), and clarification to precipitate metals (including selenium) and separate solids. Step 2 uses ion exchange and electro reduction to remove selenite from the water treated by Step 1. Treated water from Step 2 will be reused on site as needed or piped about 700 feet to the east and discharged through an energy dissipater at Outfall 002. Outfall 002 includes an armored diversion berm to direct flow to Harshaw Creek. WTP2 will produce solid residuals. The solid residuals will be clarified from solution, dewatered by filter press, and deposited at the geomembrane-lined TSF, as authorized in the facility's APP.

Outfalls:

WTP1 (Outfall 001) is designed to treat and discharge up to 0.172 million gallons per day (MGD). WTP2 (Outfall 002) is designed to treat and discharge up to 6.48 MGD. The highest flow rate from Outfall 002 is expected to occur in the first years of exploration activities, with flows declining over time.

Outfall 001 (Alum Gulch): Intermittent

Discharge from Outfall 001 will only occur when South32 Hermosa Inc. is unable to reuse all water treated by WTP1 on-site.

Outfall 002 (Harshaw Creek): Continuous

Discharge from Outfall 002 is expected to occur on a continuous basis from WTP2.

Opening Conference

I first introduced myself to the onsite representatives. Then I read the NOIR and received a signature from Kara Haas on the NOIR. After receiving a signature on the NOIR, we traveled from South32's Patagonia Office to the location of the mine. We first looked at WTP1 and then WTP2. After the field observations, we reconvened at South32's Patagonia Office to review documentation.

Closing Conference

After concluding the review of documentation, we held the audit closing conference. I gave the onsite representatives my evaluation of what was reviewed and observed.

Observations

Permit Related Documents Reviewed Before/During Inspection

AZPDES Permit, Fact Sheet, QA Manual, Daily Logs.

Field Observations

I first observed WTP1 and then WTP2.

At WTP1, I observed an equalization tank, clarifier, lime addition, sludge tank, ultra-filtration tank, pH adjust tank (sulfuric acid addition), moving bed bio reactor (MBBR), reuse tank, nanofiltration, reactors, desaturation clarifier, recirculation tanks, three ERC units, an aging tank, and an ERC clarifier. I observed Outfall 001. Outfall 001 was not discharging at the time of inspection.

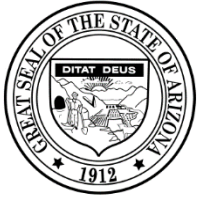
At WTP2, a cooling tower, sand ballasted clarifier, filter feed tank, thickener tank, multimedia filters, and a filter press. I observed Outfall 002. Outfall 002 was discharging at the time of the inspection.

Comments and Potential Deficiencies (Areas of Concern)

No potential deficiencies were identified at the time of the inspection.

Site Map – Document Areas Visited/Not Visited (draw on aerial imagery added prior to inspection)





ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Arizona Pollutant Discharge Elimination System Permit Inspection Report

This checklist is provided as a tool for permit holders and ADEQ staff to have a consistent understanding of the major compliance expectations under this permit. This checklist is designed to be easy to read and follow. It is intended only to address the permit requirements that ADEQ feels are the most important to protect human health and the environment. This list does not include every permit condition and permit holders should ensure they understand the full requirements of their permit. This list does not supplant or supersede any legal requirement and is not binding on the permit holder or ADEQ staff.

Site Name: January Adit (Norton Mine)	Permit #: AZPDES 85604	Inspection ID: 430750
--	-------------------------------	------------------------------

PRE-INSPECTION	
Status - Operating: Yes	WWTP Population Served: n/a
Nearest Receiving Water: Alum Gulch and Harshaw Creek	Treatment Plant Grade: n/a
Distance to Receiving Water: 0.1 miles	Collection System Grade: n/a
Operator: - Operator ID: - Phone: - Email: - Op. Cert. Grade/Expiration: -/-	Attachments: Notice of Inspection Rights, Small Business Bill of Rights, Program Checklist(s), Photograph Log, Exit Debriefing
Photographs: Photographs taken during inspection	

MONITORING PRE-INSPECTION	C: Compliant NC: Non-Compliant	Comments
Are discharge flow records being submitted? (Part II.B)	C	
Did inspector obtain current WET testing? (Part I.C)	N/A	
Are ammonia logs being submitted on MyDEQ? (Appendix C)	N/A	
Laboratory results being submitted on MyDEQ? (Part II.B.2)	C	
Bench sheets are being submitted on MyDEQ? (Part II.B.2)	C	
Does the site have DMR violations in the past year? (Part II.B.1) <input type="checkbox"/> Reporting errors (Part II.B.) <input type="checkbox"/> Non-submittals (Permit Part II.B.2) <input type="checkbox"/> Exceedances (Permit Part I.) <input type="checkbox"/> Missing parameters (Permit Part I.) <input type="checkbox"/> Late Discharge Monitoring Reports (DMRs) (Permit Part II.B.2)	N/A	
Did the permittee submit the annual biosolids report to ADEQ? (Part III.Q)	N/A	

Were required notifications provided for non-compliance events in accordance with the timeframes in the permit (Part II.C)? (List notifications in Comments)	N/A	
Do DMR exceedances meet the requirements for significant non-compliance? (Permit Part I.)	N/A	
Are calculations made correctly on DMRs (spot check)? (Permit Part I.)	C	
Were DMRs and monitoring requirements discussed with the site? (Part II.D)	C	
If a WET testing failure was reported, was follow up testing conducted (Part IV)?	N/A	
Were any WET testing violations discussed with the site? (Part IV)	N/A	
Have there been any bypasses within the last year? (Standard Condition 14.C) (Standard Condition 13.F.ii)	N/A	

DOCUMENTATION	C: Compliant NC: Non-Compliant	Comments
Does the site have a copy of the current signed permit? (Standard Conditions 11-Monitoring and Records)	C	
Is the site information correct on Page 1 of the permit?	C	
If the permit expires in less than 180 days, has the permittee applied for a renewal? R18-9-B904(B)(1)	N/A	Effective Date: Permit Expiration Date:
Was ADEQ notified of any significant construction that affects the overall treatment process? (Standard Condition 13.A)	N/A	
Does the permittee retain the following records? (Part II.D & Standard Conditions 11)	C	Reviewed the following:
<input checked="" type="checkbox"/> Monitoring Information <input checked="" type="checkbox"/> Monitoring System Calibration <input checked="" type="checkbox"/> Monitoring System Maintenance <input checked="" type="checkbox"/> Monitoring Flow Records		<input checked="" type="checkbox"/> All reports required by the permit <input type="checkbox"/> Data used for permit application <ul style="list-style-type: none"> • 3 year retention <input type="checkbox"/> Sewage Sludge activities <ul style="list-style-type: none"> • 5 year retention
Monitoring records include all of the following: (Standard Conditions 11.C)	N/A	
<input checked="" type="checkbox"/> Sample Date and Time <input checked="" type="checkbox"/> Sample Location <input checked="" type="checkbox"/> Who performed the sample <input checked="" type="checkbox"/> Analysis Date		<input checked="" type="checkbox"/> Who performed the analysis <input checked="" type="checkbox"/> Analysis Techniques/ Methods <input checked="" type="checkbox"/> Analysis Results
Is there a copy of the operations and maintenance manual on-site? (Standard 6)	C	
Documentation of proper operation and maintenance of all facilities, system of treatment, and control (and related appurtenances) which are used to achieve compliance with the permit? (Standard Conditions 6)	C	
Do the treatment plant components appear to be in working order? (Standard Conditions 6)	C	

Does site have redundancies in place?	No	Clarifiers, ERC units,
---------------------------------------	----	------------------------

OUTFALL	C: Compliant NC: Non-Compliant	Comments
Are all outfalls listed in the permit accounted for? (List outfalls in comments)	C	Outfall: -110.752729, 31.540169
Is the discharge from the outfall free from oil, grease, floating debris, foam, scum, etc? (Part I.F)	C	
Does the outfall appear to be well-maintained and free of debris and vegetation? (Part I.E) <input checked="" type="checkbox"/> Discharging at time of inspection?	C	
Does the compliance sample locations match the permit locations? (Part I.J) Influent: after the last addition to the collection system and prior to first treatment process. Effluent: downstream from last treatment process and prior to mixing with receiving waters.	C	Compliance sampling type? <input checked="" type="checkbox"/> Grab <input checked="" type="checkbox"/> Composite <ul style="list-style-type: none"> When is compliance sample usually complete, what time of the day/month Site uses a composite sampler? Is there a secondary temperature check in composite sampler?
Are on-site flow meters properly calibrated? (Part II.D and Standard Conditions 11)	C	

QUALITY ASSURANCE MANUAL (PART II. A.)	C: Compliant NC: Non-Compliant	Comments
Does the site have a current, written QA manual on-site that describes sample collection and analyses processes? (Part II.A)	C	
Do the SOPs for each ADHS exempt method include procedures for: sample collection, calibration of instrumentation, quality control, and sample analysis? (Part II. A.2.b)	C	
Is the site measuring the following parameters according to ADHS methods? <input type="checkbox"/> Total Residual Chlorine <input checked="" type="checkbox"/> pH <input type="checkbox"/> Temperature <input type="checkbox"/> Dissolved Oxygen	C	
Does the QA Manual contain documentation of preventive maintenance of instrumentation?	C	
Does the QA Manual contain records of each analyst's training?	C	
Does the QA Manual contain records of participation in the DMR QA study? (Part II.B.4)	C	Date of DMR QA study: September 9, 2022
If no, did the permittee participate in the DMR QA study?	No	
Are ADHS approved methods used for all analyses? (Part II.A)	C	
Does permittee use an accepted instrument for ultra-low total residual chlorine (TRC) method? (Part II.A.)	N/A	
Was a TRC method detection limit study done? (Part II.A)	N/A	Date last MDL study completed: Reporting Limit: µg/L

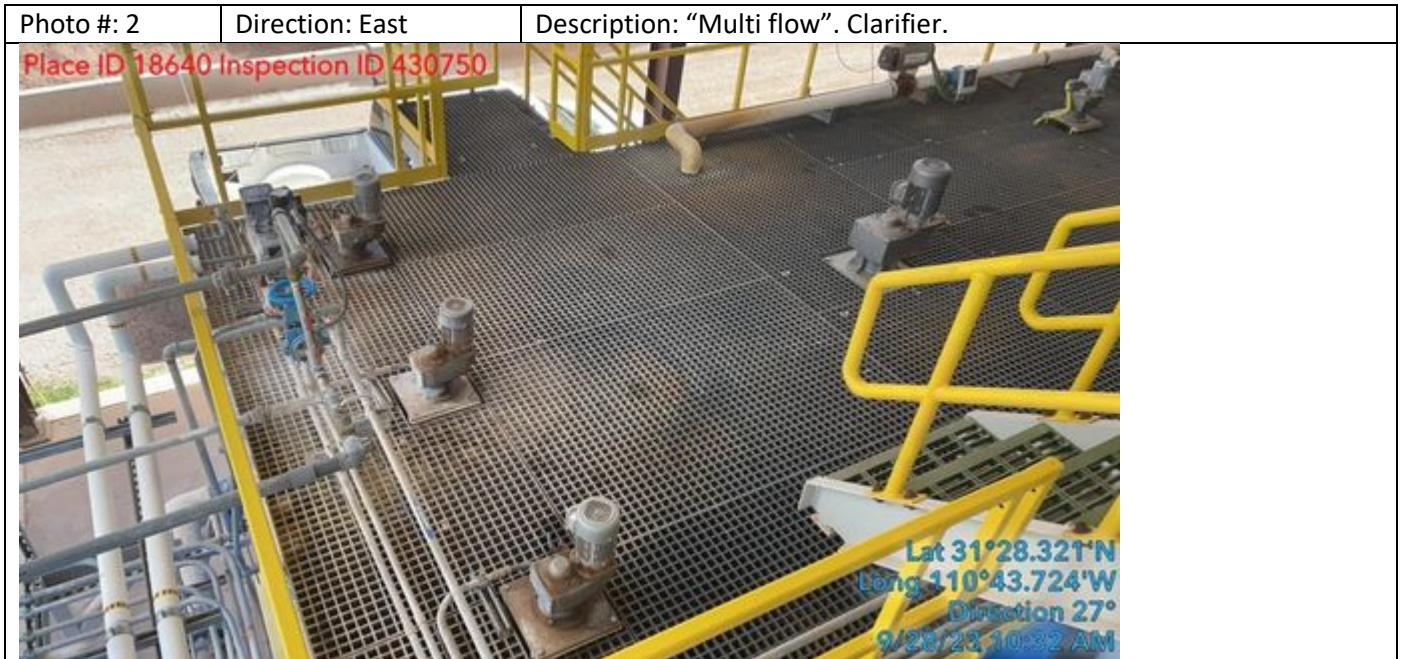
Is the TRC MDL documented in the QA Manual? (Part II.B.f)	N/A	
Are on-site lab instruments properly calibrated? (Part II. A. and Standard Condition 11)	N/A	
Are on-site calibration and baseline reagents current and not expired? (Part II.A.)	C	

SEWER SYSTEMS		C: Compliant NC: Non-Compliant	Comments
Minimizes Sewer Blockage and Erosion? (A.A.C. R18-9-E301.B.2)	N/A		
Any SSO greater than 100 gallons experienced in the past year?	N/A		
Has the RP implemented any of the following items to prevent SSOs and respond to the release of sewage? <input type="checkbox"/> Procedures to track SSOs (date, location, cause, volume) <input type="checkbox"/> An SSO response plan	N/A		

SPECIAL CONDITIONS		C: Compliant NC: Non-Compliant	Comments
Pretreatment (Part V)	N/A		
Reopener (Part V)	C		
Operations (Part V)	N/A		
Other (Part V):	N/A		

ADEQ Inspection Photo Log

WTP1:



ADEQ Inspection Photo Log

Photo #: 3	Direction: East	Description: Clarifier. Lime is added to drop metals out of solution. pH is increased to approximately 10.5.
------------	-----------------	--



ADEQ Inspection Photo Log

Photo #: 4	Direction: East	Description: Sludge tank. The solids that are collected on the bottom of the clarifier then flow with some water into this tank, the "sludge tank". Mixing occurs within this tank. The sludge will then flow to the filter press.
------------	-----------------	--



ADEQ Inspection Photo Log

Photo #: 5	Direction: East	Description: The clarified water from the clarifier then goes to the "UF Tank", or "Ultra Filtration Tank". This clarified water then gets pumped through the Ultra Filtration media.
------------	-----------------	---



Photo #: 6	Direction:	Description: "pH Adjust Tank". After the ultra filtration, the water then flows into this pH adjust tank, where sulfuric acid is added to bring the pH back down to about 9.
------------	------------	--



ADEQ Inspection Photo Log

Photo #: 7	Direction: West	Description: MBBR. Moving bed bio reactor. The water then gravity flows into the MBBR. Which was designed for treating ammonia. However, they site has not needed to treat for ammonia.
------------	-----------------	---



Photo #: 8	Direction:	Description: Resuse tank. After the water the flows through the MBBR, the treated water then is stored in this reuse tank. Once the water reaches a certain level, the treated water is automatically pumped to the construction water pond.
------------	------------	--



ADEQ Inspection Photo Log

Photo #: 9	Direction: n/a	Description: Nano filtration for sulfates. Anti scalant is added so the filters don't get clogged
------------	----------------	---



ADEQ Inspection Photo Log

Photo #: 10	Direction: West	Description: Reactor 1. Concentrate from the nano filters then flows to Reactor 1. Desaturation occurs with ferric chloride. Mixing is occurring so the solids don't settle out. Lime is added to increase the pH to approximately 10.9. Calcium sulfate is also added
-------------	-----------------	--



ADEQ Inspection Photo Log

Photo #: 11	Direction: Southwest	Description: Reactor 2. More contact time with ferric chloride and lime.
-------------	----------------------	--



ADEQ Inspection Photo Log

Photo #: 12	Direction: n/a	Description: Water flows from reactor 2 into the desaturation clarifier. Polymer is added to drop solids, including calcium sulfate, out of solution. Once the density in the clarifier becomes 25% solids, they'll send some solids to the filter press.
-------------	----------------	---



ADEQ Inspection Photo Log

Photo #: 13	Direction: n/a	Description: From the desaturation clarifier, the water then flows to an ERC feed tank, which then pumps the water into one of three circulation tanks. The circulation tanks circulates the water through one of three ERC units.
-------------	----------------	--

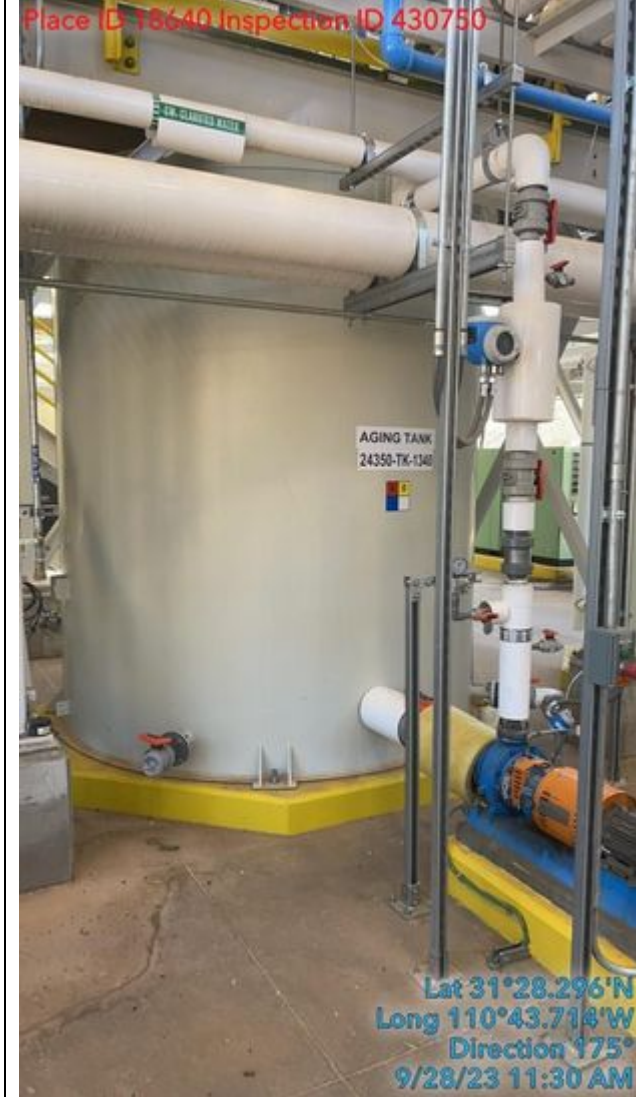


Photo #: 14	Direction: North	Description: Three ERC Units.
-------------	------------------	-------------------------------



ADEQ Inspection Photo Log

Photo #: 15	Direction:	Description: After the water is circulated through an ERC, the water is then maintained in this aging tank to give more contact time.
-------------	------------	---



ADEQ Inspection Photo Log

Photo #: 16	Direction:	Description: From the aging tank, the water is then transferred to the ERC clarifier where a different type of polymer is added.
-------------	------------	--



ADEQ Inspection Photo Log

Photo #: 17	Direction:	Description: From the ERC clarifier, the water flows into this ERC clarifier Overflow Tank.
-------------	------------	---



ADEQ Inspection Photo Log

Photo #: 18	Direction:	Description: From the ERC Clarifier Over Flow tank, the water then flows to a his blending tank which includes a baffle. Sodium bicarbonate is added to reduce the pH to about 8. From here the water flows to the MBBR and subsequently the reuse tank.
-------------	------------	--



ADEQ Inspection Photo Log

Photo #: 19	Direction: Northeast	Description: Outfall 001
-------------	----------------------	--------------------------



ADEQ Inspection Photo Log

Photo #: 20	Direction: Southeast	Description: Outfall 001
-------------	----------------------	--------------------------



ADEQ Inspection Photo Log

WTP2:

Photo #: 21	Direction: Northwest	Description: Cooling tower. (WTP2) 80,000 gallon holding tank under cooling pads.
		

Photo #: 22	Direction: Northwest	Description: Three pumps (1500 gpm). Each pump feeds one of three trains. The water is sent from the holding tank to sand ballasted clarifiers. Flocculant and sand introduced to pull metals out of solution.
		

ADEQ Inspection Photo Log

Photo #: 23

Direction: n/a

Description: Sand ballasted clarifier



ADEQ Inspection Photo Log

Photo #: 24	Direction: n/a	Description: Filter feed tank. Water from the sand ballasted clarifier is fed to here.
-------------	----------------	--



ADEQ Inspection Photo Log

Photo #: 25	Direction: n/a	Description: The solids collected in the sand ballasted clarifier are collected using a hydro cyclone. The solids slurry is gravity fed
-------------	----------------	---



ADEQ Inspection Photo Log

Photo #: 26	Direction: Northwest	Description: Metals remover thickener tank. Clarifier
-------------	----------------------	---

Place ID 18640 Inspection ID 430750



ADEQ Inspection Photo Log

Photo #: 27	Direction: n/a	Description: Multi media filters. The water comes through these filters after the filter feed tank.
-------------	----------------	---



Photo #: 28	Direction: n/a	Description: Filter press for solids
-------------	----------------	--------------------------------------



ADEQ Inspection Photo Log

Photo #: 29	Direction: n/a	Description: Cartridge filters. After the multimedia filters, the water flows through cartridge filters.
-------------	----------------	--



Photo #: 30	Direction:	Description: After the cartridge filters, the water then flows to the ion exchange feed tank
-------------	------------	--



ADEQ Inspection Photo Log

Photo #: 31	Direction: Northwest	Description: Treated effluent from WTP2. This is where the treated effluent from WTP2 daylights.
-------------	----------------------	--



ADEQ Inspection Photo Log

Photo #: 32 Direction: Southeast Description: Treated effluent flows down this rip rap lined channel



Photo #: 33 Direction: Southeast Description: Reno mattress



ADEQ Inspection Photo Log

Photo #: 34	Direction: North	Description: Outfall 002
<p data-bbox="134 212 597 243">Place ID 18640 Inspection ID 430750</p>  <p data-bbox="966 699 1227 814">Lat 31°27.927'N Long 110°43.163'W Direction 276° 9/28/23 1:21 PM</p>		

ADEQ Inspection Photo Log

Photo #: 35	Direction: North	Description: Harshaw creek
-------------	------------------	----------------------------





ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Field Inspection - Exit Debriefing

Inspection Information	
Facility Name: January Adit (Norton Mine)	Inspection #: 430750
Place ID #: 18640	Inspection Date: September 27, 2023
Facility Address: 749 HARSHAW RD, PATAGONIA, AZ 85624 Facility Location: 31.540148, -110.752732	
Environmental Program(s): Arizona Pollutant Discharge Elimination System	

You have just received an inspection conducted to evaluate compliance with the Arizona Revised Statutes, Title 49; the Arizona Administrative Code; and applicable permits/licenses. The following is intended to summarize potential deficiencies noted during the inspection, items you should consider for follow up action, or additional information requested by the inspector that is necessary to make a compliance determination. Any omissions in this exit debriefing shall not be construed as a determination of compliance with applicable laws and rules. **Be advised that additional reports and correspondence may be forthcoming from ADEQ.**

No potential deficiencies identified at the time of the inspection.

Please submit requested documentation by:

Facility Representative	Inspector
Name: Kara Haas	Name: STEVEN SAEED
Signature: 	Signature: 

Please submit your response to your inspector's attention by E-mail to: Saeed.steven@azdeq.gov