

Katie Hobbs
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Karen Peters
Cabinet Executive Officer
Executive Deputy Director

Air Quality Field Inspection Report

Company Name: Energy Fuels Resources (USA) Inc.	Inspection Report No.: 449060	
Place Name: Pinyon Plain Mine Place ID No.: 827	Inspector(s): Rob Verville, Len Drago, Lauren Hildebrand	
County: Coconino	Arrival Date and Time: 6/11/2024 7:40 AM	
Physical Location: Hwy 64 to FR 305, Tusayan, AZ 86023	Reason for Inspection: <input type="checkbox"/> Complaint Complaint No.: <input checked="" type="checkbox"/> Full Inspection <input type="checkbox"/> Partial Inspection <input type="checkbox"/> Follow-Up Original Inspection Report No.:	
Mailing Address: Lakewood, CO		
Coordinates (for new locations): Latitude: Longitude:		
Permit No.: 88788 Permit Expiration Date: 10/19/2026	Was Inspection Announced? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Onsite Contact Person(s)/Title(s)/Number(s): Mathew Germansen, Assistant Mine Superintendent	Operational Status: In Development	
	Type of Source: Class II, Underground Uranium Mine	
Other Names: Energy Fuels, Denison Mines, Canyon Mine	Last Inspection: 11/29/2021 Insp ID: 387358	
Inspection Report Issued: Via email at facility	Facility Initial:	ADEQ Initial:
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. <input type="checkbox"/> No compliance determination made during inspection, information requested.		

Comments:

Process Equipment

The proposed mine production rate is 109,500 tons per year (tpy) of uranium ore. No ore processing will be conducted on-site. The ore will be shipped to an off-site processing mill. If the ore cannot be shipped immediately to the mill, it will be placed on site in stock piles within the Ore Stockpile Area (OSA). The OSA will encompass approximately 0.7 acre and can accommodate up to 13,100 tons of stockpile ore. Power for the facility is supplied via overhead electric lines. A diesel generator is used as a source of backup power in the event of power failure. A total of four (4) evaporator fans are currently used to enhance evaporation of water in the evaporation pond.

Rock from the mining operations with less than 0.03 percent uranium will be stored on the surface in the Development Rock Area (DRA) and in mined-out areas of the underground workings. The DRA will encompass approximately 1.54 acres.

RADIATION DISCUSSION¹

Energy Fuels Resources (USA) Inc.'s Pinyon Plain Mine is an underground uranium mining operation. Uranium is a naturally occurring radioactive element, which is present in virtually all soil, rock, and water.² The extraction of the Uranium ore from the rock will expose the naturally occurring radioactive material to the environment.

Ionizing Radiation

The form of radiation of concern at the Pinyon Plain Mine is ionizing radiation. The ionizing radiation present at the Pinyon Plain Mine site will include x-rays, gamma rays, alpha particles and beta particles. These types of radiation are emitted from the naturally occurring radioactive material found in and around the uranium ore body. The negative health effects attributed to this type of radiation depend on many parameters including the amount of radiation received (dose), the rate at which the radiation is delivered (dose rate), and the type of ionizing radiation (alpha, beta, x-ray, gamma).

When ionizing radiation deposits energy in living matter it produces a physical and biological effect, which may be quantified in terms of dose. The dose to a particular receptor of radiation is expressed in radiological units, known as rems (roentgen equivalent man). However, because this unit is so large it is often useful to divide the value by 1,000 and call it millirem (mrem).

Natural Radiation Environment

Radioactive materials are present in air, water and soil. Their concentrations are expressed in units of radioactivity per volume or mass. Typical concentrations of naturally occurring uranium and Radium-226 in normal soil are on the order of 1 pico-Curie per gram. A pico-Curie (pCi) is equivalent to 2.22 atoms of the radionuclide decaying each minute. These values may vary considerably depending on the extent of uranium mineralization in the area being examined.

The natural radiation environment of the Pinyon Plain Mine site consists of cosmic radiation and radioactive elements including Hydrogen-3, Carbon-14, Potassium-40, Rubidium-87, Uranium-235, Uranium-238 and Thorium-232. Uranium-238 and Thorium-232 are ubiquitous in soil with average concentrations in the range of a few parts per million. Each are parent elements of a radioactive decay series. The parents decay to daughters (or progeny), which are also radioactive. Natural uranium is about 99.3% U-238.

Airborne & Direct Radiation

A progeny of U-238 is Radon-222. Radon is a colorless, odorless and inert gas which diffuses into the atmosphere from rocks, soil and building materials. All the radon progeny are particulates and many decay by emitting alpha particles. It is the alpha particle emitting progeny of Radon-222 that have been linked to negative effects on humans.

Radon gas emanates from earthen materials containing uranium such as natural soil and the ore stockpiles. Once airborne, the gas may be transported by prevailing winds and will decay to its progeny. Uranium and its progeny will be present in dust from the mining operations. The mine shaft vent emissions are subject to limitations set forth of 40 Code of Federal Regulations (CFR) Part 61 subpart B at 10 mrem/year. Radiation exposure from dust associated with the mining operation is dependent on the concentrations of dust in the air and the activity of the compounds in the dust. EFRI is required by the permit to have a Dust Control and Soil Sampling Implementation Plan that will have a radiation monitoring component.

Direct radiation from haul trucks is estimated to be approximately 2 mrem/hr at the truck bed, about 0.3 mrem/hr on the shoulder of the roadbed, and normal background at about 96 feet from the trailer. As a truck passes, individuals standing on the shoulder of the road would receive a dose of radiation too small to quantify. These radiation concentrations can be put in perspective by comparing them to what naturally occurs in various locations. For example,

¹ Radiological Assessment of the Arizona 1 Project Prepared for EFNI by Dr. John W. McKlveen January 25, 1988

² Radionuclide Basics: Uranium on EPA.gov (accessed April 16, 2019)

naturally occurring radiation levels for a person living in the Colorado Plateau will receive 400-500 mrem per year based on Environmental Protection Agency (EPA) estimates. Thus, the estimated radiation exposure from the site does not present a significant risk to human health.

Attainment Classification

The facility is located in Coconino County which is an attainment or unclassified area for the National Ambient Air Quality Standards (NAAQS).

CURRENT OPERATIONS

Prior to the inspection, the ADEQ inspector emailed Matt Germansen, Assistant Mine Superintendent, to discuss and scheduling an inspection. The ADEQ inspector agreed to meet Mr. Germansen at the Hwy 64 and Fire Road 305, then proceed to the mine site.

After following Mr. Germansen to the mine site, the ADEQ inspector did not observe any visible emissions or odors when approaching the front entrance gate.

At the office, the ADEQ inspector introduced the ADEQ inspection team. ADEQ was represented by: Rob Verville, Air Source Inspector; Len Drago, Ombudsman & Tribal Liaison; and Lauren Hildebrand, Yavapai & Coconino County Community Liaison. The ADEQ party signed in and received a safety briefing from Mr. Germansen. The Notice of Inspection Rights (NOI) was presented to and signed by Mr. Germansen.

Mr. Germansen provided a overview of the mine operations, how a breccia pipe is formed, mining a breccia pipe, the milling process, and reclamation.

The inspector used the source inspection checklist during the inspection. Mr. Germansen provided the requested information and documentation during the inspection.

During the inspection, two MSHA inspectors arrived at the site to conduct an inspection. Mr. Germansen continued with the ADEQ inspection team and another operator assisted the MSHA inspectors.

During the inspection, two underground blasts occurred, at the 5060 level and the 5170 level. From the back of the office trailer, the ADEQ group felt the 5060 level blast shake the ground. From the front gate area, the ADEQ group observed and heard the 5170 level blast shake the mine vents. No visible emissions were observed from either blast from the mine vents.

Mr. Germansen stated the Ore Storage Pad currently has approximately 3,750 tons of uranium ore on the pad from development operations and testing (photograph #7). Mr. Germansen stated they have not hauled any uranium ore off site. Mr. Germansen stated, the ore comes from the underground with approximately 15% moisture in the material. Mr. Germansen point out a pole with painted markings at 5-foot increments so they can gauge the height of the ore pile.

The ADEQ inspectors walked through the maintenance shop are and observed the emergency electricity generator (photograph #6). Mr. Germansen provided documentation of operating hours and oil analysis. The ADEQ inspectors observed the hoist room.

The mine continues to pump water from the underground mining area to the non-storm water evaporation pond. The evaporation pond has four APEX down firing evaporators to assist with evaporation. A water mist is visible around the APEX units (photographs #12, #15, #16). No mist was observed migrating outside the perimeter of the pond.

The Coconino level water is managed separately and pumped to a water treatment system and to two open top holding tanks, one 400,000 gallons and one 1,000,000 gallons (photograph #14). Mr. Germansen stated, the treated water can be used for onsite dust control and area ranches can use the treated water. The site has a water tank and water truck for dust control (photograph #20).

The ADEQ inspectors observed several dumps of development rock from skips (photograph #10). No visible emissions were observed from the dumping operations. The dumping area has two side walls on the north and west side of the dump. The dump is located under the headworks.

The facility installed a Met station on February 19, 2024 (photograph #22). The facility provided the installation and calibration report for the Met station from the vendor. Mr. Germansen stated the system will notify the operators of a wind event and provide instructions on what actions are required.

The mine has an emergency escape shaft that also serve as the Mine Vents (photograph #11). Mr. Germansen showed the ADEQ inspectors the Mine Vent shaft radon monitors (photograph #17). Each Mine Vent has a monitor. Mr. Germansen stated they receive a realtime readout.

Mr. Germansen showed the ADEQ inspectors an offsite radiation detection badge and provided a quick explanation of the badge and soil monitoring. The ADEQ inspectors also observed a USGS dust collector device.

Mr. Germansen stated the mine is still in the development stage with MSHA.

Exit Debrief:

- No Issues

For air quality permit concerns and assistance, please contact Karla Murrieta, ADEQ, Air Permits Manager at office (602) 771-2283 or Murrieta.Karla@azdeq.gov.

Air permit documents and questions can also be submitted to airpermits@azdeq.gov.

Attachments:

Notice of Inspection Rights
Photograph Log
Inspection Checklist



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

NOTICE OF INSPECTION RIGHTS

FACILITY INFORMATION	ADEQ INFORMATION
Facility Name (Customer): Pinyon Plain Mine	Date of Inspection: 6/11/2024 7:40 AM
Facility Location (Place): Hwy 64 to FR 305, Tusayan, AZ 86023	County: Coconino
	Inspector: Rob Verville
Mailing Address: Lakewood, CO	Telephone: (602) 320-1814
	Accompanied by: Len Drago Lauren Hildebrand
Responsible Party: Energy Fuels Resources (USA) Inc.	
On-Site Representative: Mathew Germansen	ADEQ Follow-up Contact: Rob Verville Air Inspector
Title: Assistant Mine Superintendent	
Telephone:	Telephone: 602.320.1814
Email:	Email: rgv@azdeq.gov

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 3

Arizona Administrative Code: Title 18, Chapter 2

Permit/Agreement Number: 88788

☐ Qualification for a license issued pursuant to:

Arizona Revised Statutes: Title 49, Chapter 3

Arizona Administrative Code: Title 18, Chapter 2

☐ That this inspection is conducted pursuant to the authority granted in Arizona Revised Statutes § 49-104(B)(8) and/or:

Arizona Revised Statutes: § 41-1009

Arizona Administrative Code: Title 18, Chapter 2

Permit/Agreement Number: 88788

☐ 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.

☐ Possible applicability of Small Business Bill of Rights pursuant to Arizona Revised Statutes § 41-1001(21)

That the fee for this inspection is: No fee for the inspection

*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

6/11/2024

☐ 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 an authorized on-site representative was not present at the facility.

Inspected by:

Signature of ADEQ Representative

6/11/2024

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 to, on request:
- 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:
 - participation in an interview is voluntary, unless legally compelled to participate;
 - 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;
 - 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;
 - statements made by the person may be included in the inspection report; and
 - they have the right to 24 hours to review and revise any written witness statement 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, 771-4322); 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 Edwin Slade, ADEQ's Office of Administrative Counsel at (602) 771-2212 (toll free inside Arizona at (800) 234-5677, extension 771-2212).

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.

Air Quality Field Inspection Photograph Log


Site Location: Pinyon Plain Mine - Hwy 64 to FR 305, Tusayan, AZ 86023		Photographer: Rob Verville	Camera: HP Elite x2
Weather: clear			
Photo No. 1	Date: 6/11/2024		
Direction Photo Taken: South			
Photo Description: Mathew Germansen Method 9 field certification. Expiration date: October 17, 2024.			

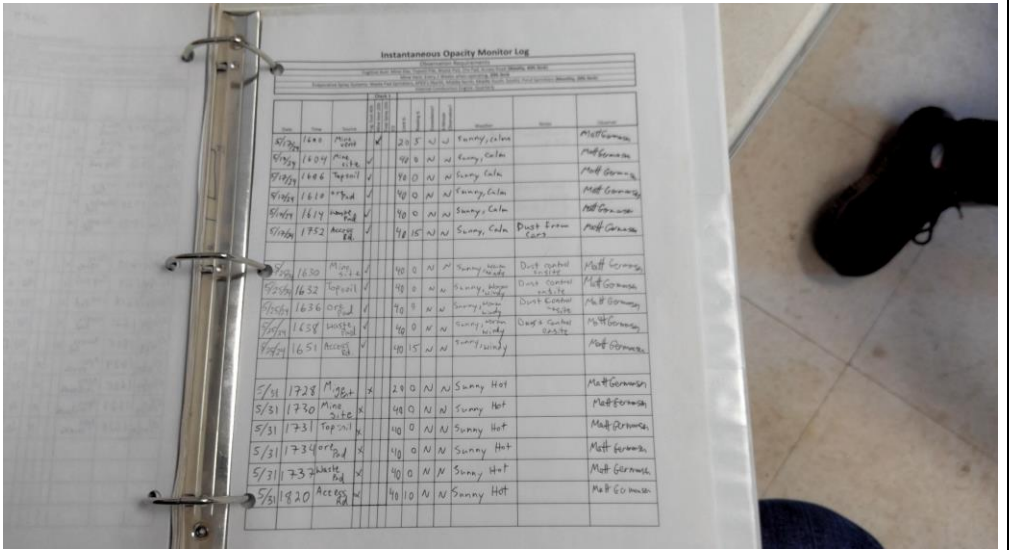
Photo No. 2	Date: 6/11/2024	
Direction Photo Taken: Down		
Photo Description: Instantaneous visible emission log.		

Photo No. 3	Date: 6/11/2024	
Direction Photo Taken: Down		
Photo Description: Log that shows water truck loads.		

Photo No. 4	Date: 6/11/2024	
Direction Photo Taken: Down		
Photo Description: Nozzle inspection form.		


Photo No. 5	Date: 6/11/2024	
Direction Photo Taken: North		
Photo Description: Oil filter change date on generator engine. Date: 11/16/22 The facility is using oil analysis to defer oil changes.		

Photo No. 6	Date: 6/11/2024
Direction Photo Taken: Southeast	
Photo Description: Electricity generator, not operating.	

A large yellow Caterpillar GEN455 generator set is positioned in a well-lit industrial facility. The generator is mounted on a blue metal frame. The unit features a prominent yellow control panel on the right side with a digital display and various control buttons. The text 'GEN455' is printed vertically in large blue letters on the side of the generator. The background shows a large window looking out onto a bright outdoor area with some industrial structures.


Photo No. 7	Date: 6/11/2024	
Direction Photo Taken: South		
Photo Description: Black/gray material beyond gray berm is uranium ore. 3,750 tons currently on the Ore Pad. Pole on the right has five foot increments to measure pile height. Development and waste rock in background.		

Photo No. 8	Date: 6/11/2024
Direction Photo Taken: Northwest	
Photo Description: Facility sign at entrance.	


A photograph showing a white pickup truck parked behind a chain-link fence. The truck has a large white sign on its side that reads "CP ENERGY FUELS" in blue and black text, followed by "PINYON PLAIN MINE" in black. Below this, in smaller text, it says "WEIGH STATION" and "WEIGH HERE TO GET THE OFFICE". There is also a small American flag graphic and the text "MADE IN THE USA". To the left of the white truck, the rear of a silver SUV is visible. The scene is set in a dry, rocky area with a steep, light-colored rock face in the background under a clear blue sky. A metal fence with two horizontal rails runs across the foreground, and a single strand of barbed wire is visible at the top.


Photo No. 9	Date: 6/11/2024	
Direction Photo Taken: North		
Photo Description: Headworks from entrance gate area. Crushed stone on internal roads through site.		

Photo No. 10	Date: 6/11/2024	
Direction Photo Taken: North		
Photo Description: Hopper with material being dumped from skips.		

Photo No. 11	Date: 6/11/2024	
Direction Photo Taken: Northwest		
Photo Description: Mine vents and emergency escape system. Door on vent is where escape pod enters for evacuation.		


Photo No. 12	Date: 6/11/2024	
Direction Photo Taken: Northwest		
Photo Description: Evaporation pond with four APEX down draft evaporators.		


Photo No. 13	Date: 6/11/2024	
Direction Photo Taken: South		
Photo Description: Shipping container with electric heaters for APEX evaporators.		

Photo No. 14	Date: 6/11/2024	
Direction Photo Taken: North		
Photo Description: 400,000 gallon and 1,000,000 gallon mobile ponds. Water treatment plant is in a shipping container.		


Photo No. 15	Date: 6/11/2024	
Direction Photo Taken: Northwest		
Photo Description: The two north down firing evaporators while operating. Visible mist present around the units.		

Photo No. 16	Date: 6/11/2024
Direction Photo Taken: West	
Photo Description: The south two down firing evaporators. Visible emissions observed.	



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Photo No. 17	Date: 6/11/2024	
Direction Photo Taken: Down		
Photo Description: Radon detector at mine vent shaft. Each vent has a unit.		

Photo No. 18	Date: 6/11/2024	
Direction Photo Taken: West		
Photo Description: Mine vent shaft termination point. No visible emissions observed. Fans are operating. The fans pull air from the underground.		

Photo No. 19	Date: 6/11/2024	
Direction Photo Taken: Northeast		
Photo Description: Mine shaft heater. The unit is not currently connected to a fuel source. Mr. Germansen stated the fuel source will be propane. Mr. Germansen stated the unit was recently added to the permit equipment list. The unit is to provide heat into the mine shaft during the winter months.		

Photo No. 20	Date: 6/11/2024
Direction Photo Taken: West	
Photo Description: Water truck and water tank for dust control.	


A photograph showing a yellow water truck with a white tank parked on a dirt surface next to a large green water tank. The truck's tank has "WATER" and "1000 GALLONS" written on it. The green tank has a yellow flag on top. Several old tires are stacked in the foreground. The background shows a line of trees under a clear blue sky.


Photo No. 21	Date: 6/11/2024	
Direction Photo Taken: North		
Photo Description: Top Soil storage area against north fence. Signs on top of the hill state: "Top Soil Do Not Remove"		


Photo No. 22	Date: 6/11/2024	
Direction Photo Taken: Northeast		
Photo Description: Newly installed Met station.		

Photo No.
23

Date:
6/11/2024

Direction Photo Taken:
Northwest

Photo Description:
Underground mucker.



Photo No.
24

Date:
6/11/2024

Direction Photo Taken:
Down

Photo Description:
Oil analysis for generator engine. Analysis conducted 22-May-24, 30-Apr-23, 01-Mar-22.




Photo
No.
25

Date:
6/11/2024

Direction Photo Taken:
Down

Photo Description:
Met station installation and
calibration report from
vendor.

1st Quarter 2024 Pinyon Plain Met Station 19-Feb-24

Pace
ANALYTICAL SERVICES

METEOLOGICAL STATION AUDIT SUMMARY

Met Station: Pinyon Plain
Date: 19-Feb-24
Performed By: S. Hansen - Air Science Division

Sensor	Mfr./Model	Serial #	Reference Device	Serial ID	NML ID
Wind Speed	RM Young 05305	190798	RM Young 19022	N/A	NL 5096
Wind Direction	RM Young 05305	190798	Rotund F-0003	000600156	NL 5095
Temperature	Campbell Scientific CS107	N/A	Cole Parmer 8402-00	JC 10677	NL 5097
Data acquisition system	Campbell Scientific CR1000X	48055	N/A	N/A	N/A

System Description and Initial Inspection

Power to system?	Yes	Site Location:	482.887 m-E and 4,810.217 m-N Tower	Condition:	Good
Aspirated Fans Operational?	N/A	UTM Zone 12S and NAD83 Datum			
Logger Power and Condition?	Yes	Magnetic Declination	10° E	Sensor and Cable Conditions:	Good
Telemetry OK?	Yes				
Notes as found:		Time Offline:	26:43 MST	Time Online:	10:23 MST

Audit Results

	Reference	Reference	DAS Value	Difference	Specification	Pass/Fail
	RPM	mph				
WS (m/s)	0	0.00	0.00	0.00	0.25	Pass (1)
WS (m/s) ± 0.0012 "gm"	300	1.54	1.54	0.00	0.28	Pass (1)
	800	4.10	4.10	0.00	0.40	Pass (1)
	3000	15.36	15.36	0.00	0.97	Pass (1)
	8000	40.96	40.96	0.00	2.25	Pass (1)
WS start torque (gm-cm)		1.0	1-1.0	N/A	1-1.0	Pass (2)
Crosshair Alignment (degrees)		321.0	320.1	1.1	5	Pass (1)
WS (degrees)	Clockwise	0.0	0.5	0.5	5	Pass (1)
		90.0	89.6	0.2	5	Pass (1)
		180.0	179.7	0.3	5	Pass (1)
		270.0	270.7	0.7	5	Pass (1)
	Counter Clockwise	0.0	0.3	0.3	5	Pass (1)
		90.0	90.1	0.1	5	Pass (1)
		180.0	180.3	0.3	5	Pass (1)
		270.0	269.7	0.3	5	Pass (1)

Photo No.
26

Date:
6/11/2024

Direction Photo Taken:
Down

Photo Description:
Second page of Met station
installation and calibration
report.

1st Quarter 2024 Pinyon Plain Met Station 19-Feb-24

	Reference	Reference	DAS Value	Difference	Specification	Pass/Fail
	Temp					
Temperature (°C)	0.1	0.1	0.1	0.0	0.5	Pass (1)
	24.2	24.2	24.2	0.0	0.5	Pass (1)
	45.7	45.3	45.3	0.4	0.5	Pass (1)

WOL2 RES values exceed performance specifications

(1) EPA Quality Assurance Handbook for Air Pollution Measurement Systems, Vol. IV
Meteorological Measurements Version 2.0, March 2008

(2) Manufacturer's Specifications

Notes, Recommendations

Replaced wind speed bearings.

After Adjustments

	Reference	Reference	DAS Value	Difference	Specification	Pass/Fail
	RPM	mph				
WS (m/s)	0	0.00	0.00	0.00	0.20	Pass (1)
WS (m/s) ± 0.0012 "gm"	300	1.54	1.54	0.00	0.28	Pass (1)
	800	4.10	4.10	0.00	0.40	Pass (1)
	3000	15.36	15.36	0.00	0.97	Pass (1)
	8000	40.96	40.96	0.00	2.25	Pass (1)
WS start torque (gm-cm)		1.0	1-1.0	N/A	1-1.0	Pass (2)