



Southern Ute Indian Tribe Air Quality Program

Environmental Programs Division

Air Quality Program

Presented by: Chris Ellis and Danny Powers

November 10, 2015

Air Quality Program Overview

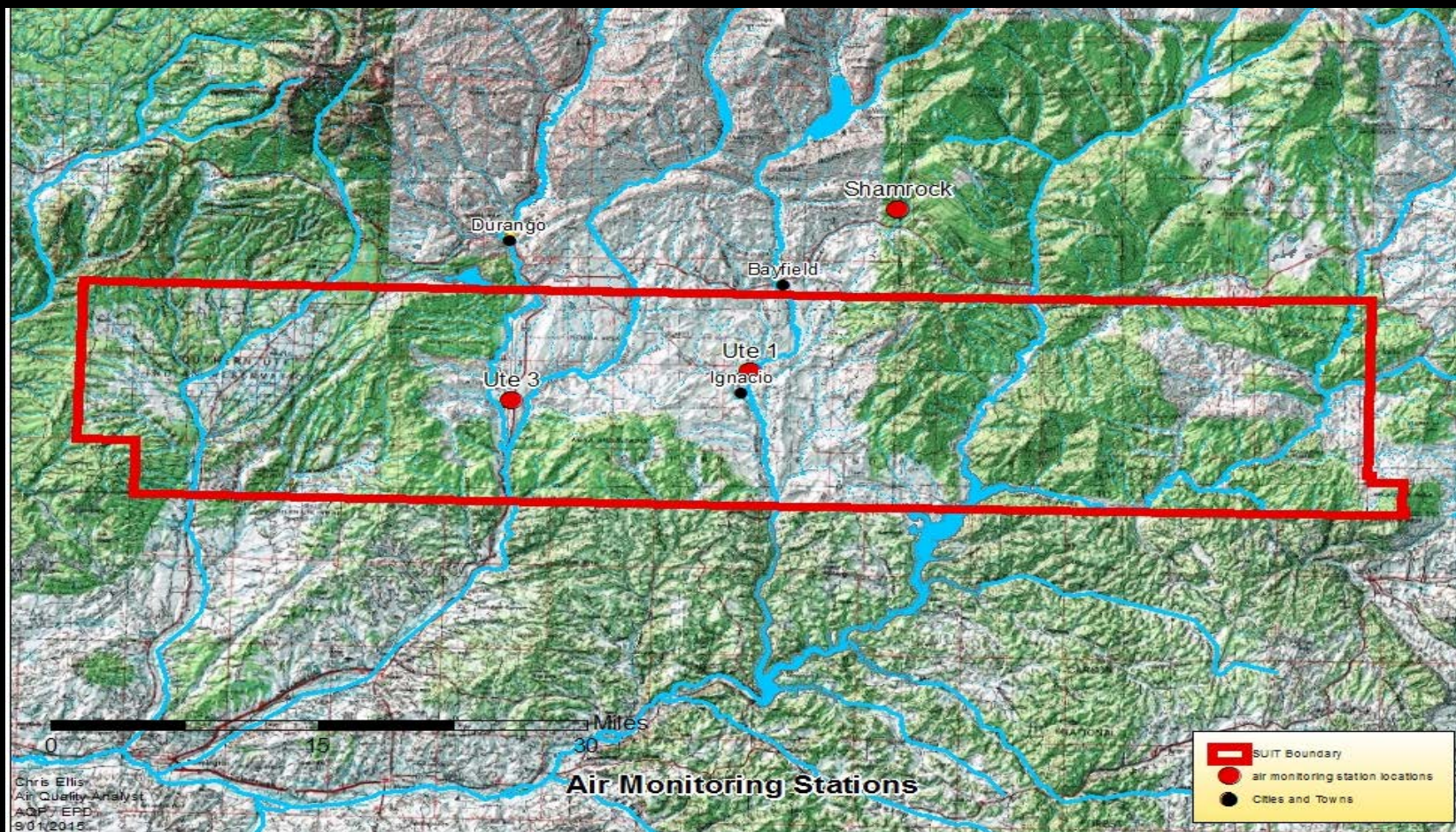
- **Ambient Air Quality Monitoring**
- **Air Quality Management**



Air Quality Monitoring

- Two ambient air monitoring stations
 - Ute 1 and Ute 3
- Monitor for the following gaseous pollutants
 - Ozone, Nitrogen Dioxide, and Carbon Monoxide
- PM2.5 monitoring
- Meteorological Monitoring
 - WS, WD, RH, ambient temp., solar radiation, precipitation

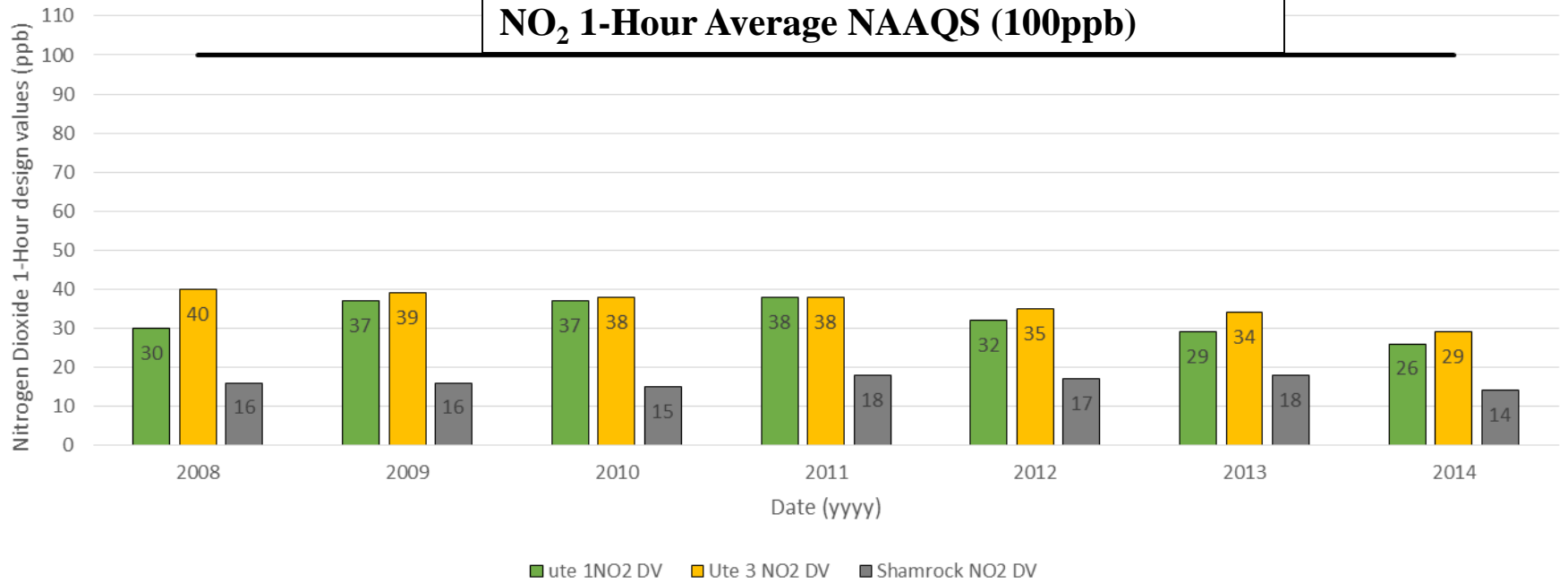
Ambient Air Monitoring Station Locations



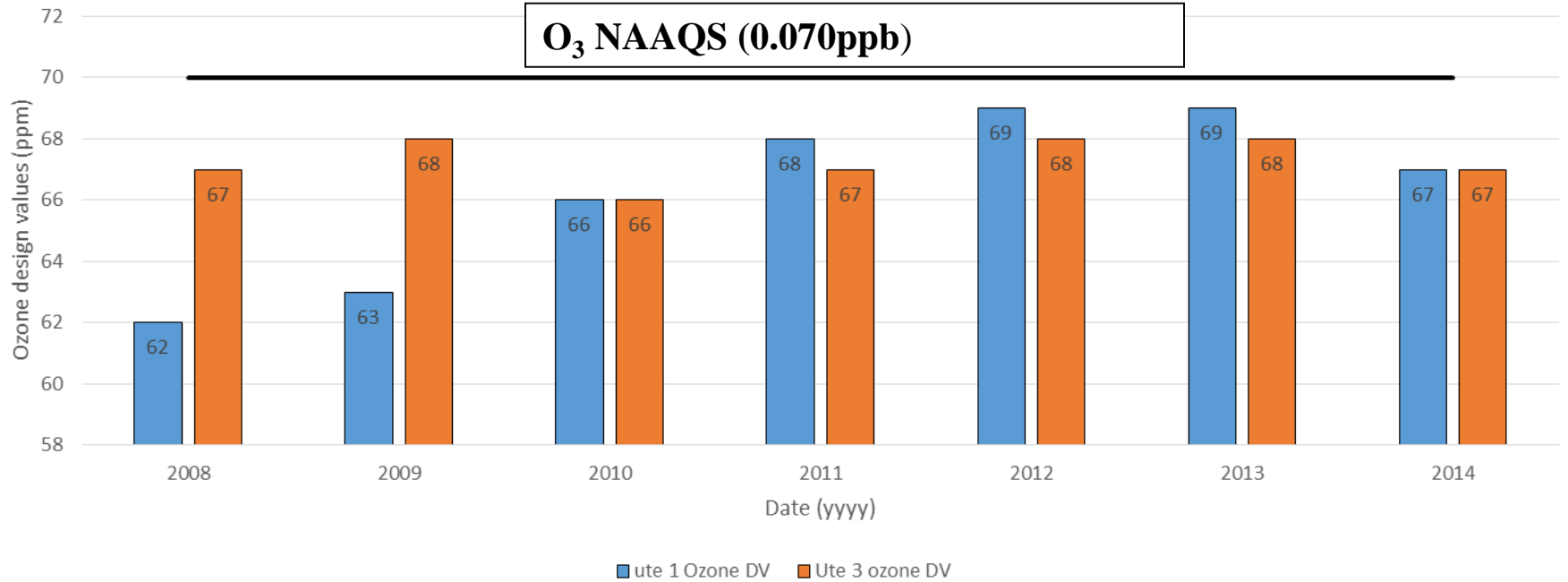
2008 to 2014 Ambient Air Monitoring Data Results/ NAAQS Comparison



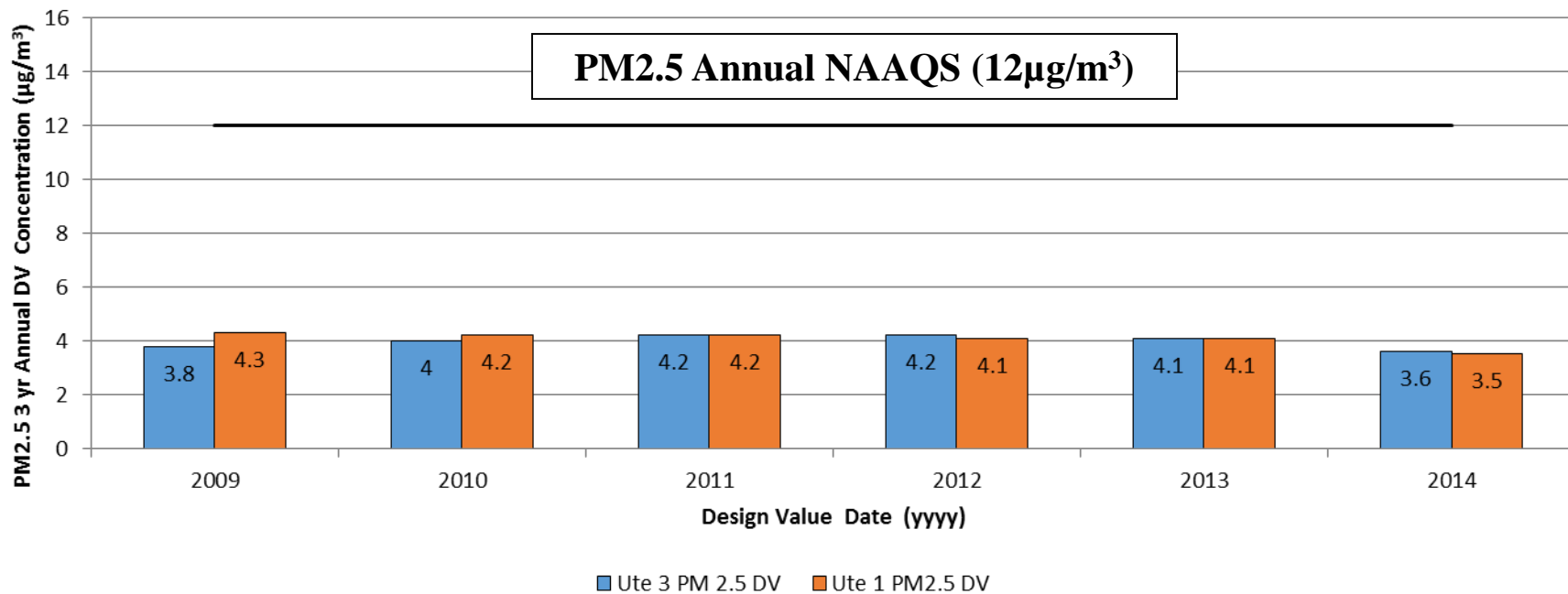
NO₂ 1-Hour Average NAAQS (100ppb)



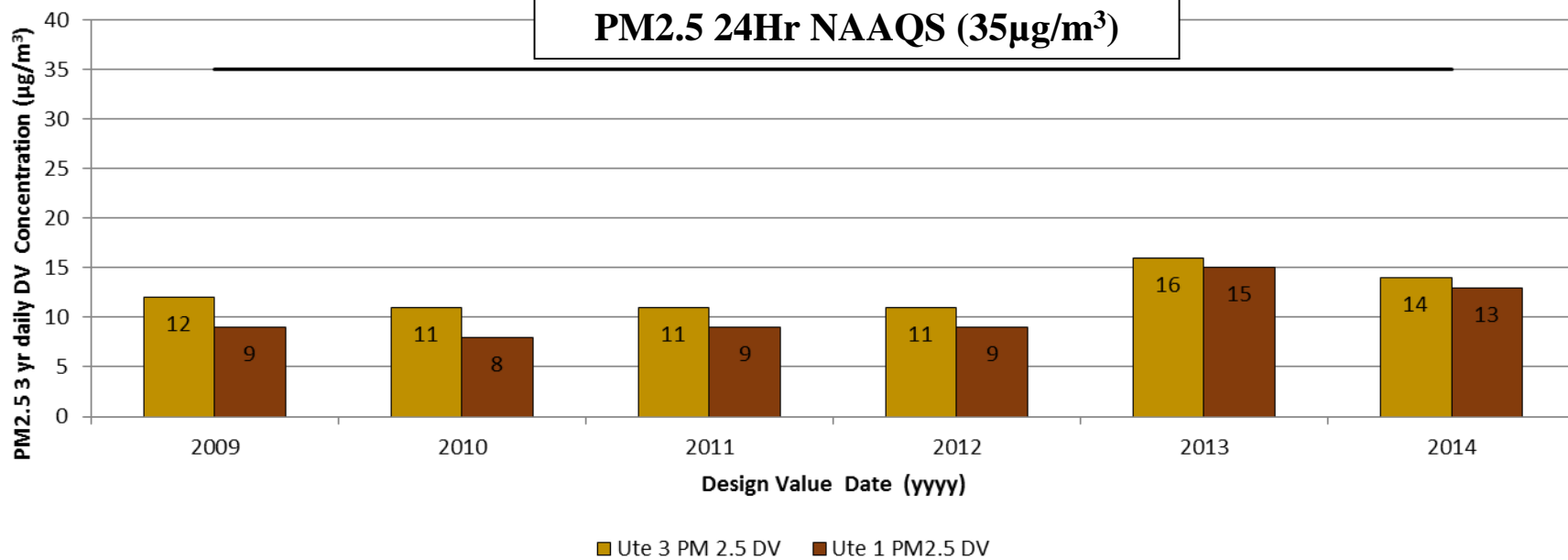
O₃ NAAQS (0.070ppb)

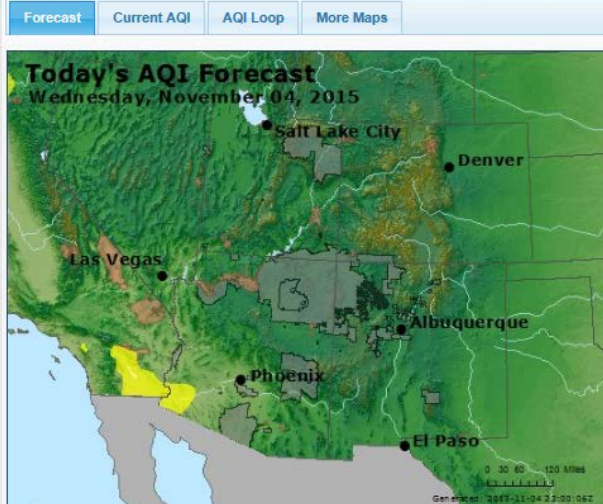


PM2.5 Annual NAAQS (12 $\mu\text{g}/\text{m}^3$)



PM2.5 24Hr NAAQS (35 $\mu\text{g}/\text{m}^3$)





Click on the city name for more detailed information.

	FORECAST		CURRENT AQI
	Wed Nov 4	Thu Nov 5	
Colorado River Valley	Good	Good	3
Colorado Springs	Good	Good	32
Denver	Good	Good	37
Fort Collins	Good	Good	25
Four Corners Area	Good	Good	36
Grand Junction	Good	Good	6
Greeley	Good	Good	22
Mesa Verde National Park	n/a	n/a	36
Rocky Mountain National Park	46	44	29
Southern Ute Indian Reservation	Good	Good	20

Air Quality Index (AQI) Values	Levels of Health Concern	Colors
<i>When the AQI is in this range:</i>	<i>..air quality conditions are:</i>	<i>...as symbolized by this color:</i>
0-50	Good	Green
51-100	Moderate	Yellow
101-150	Unhealthy for Sensitive Groups	Orange
151 to 200	Unhealthy	Red
201 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

Reporting to AirNow

- AQI
- AirNow.gov

SUIT's Role in Air Quality Management on the Southern Ute Indian Reservation

- ❑ SUIT/CO Environmental Commission
- ❑ Reservation Air Code
- ❑ Title V Operating Permit Program
- ❑ Program Development

SUIT/CO Environmental Commission



- Commission created by Intergovernmental Agreement (IGA) between Tribe and State in 1999 and supported by Federal legislation
- IGA established a unified air quality program within the exterior boundaries of the Reservation
- 3 State-Appointed and 3 Tribally-Appointed Commissioners
- Prescribes air quality control programs for the reservation
- Programs administered by the Reservation Air Program (SUIT AQP)

Reservation Air Code

- Mechanism for codification of air programs for the Reservation
- Currently contains:
 - General Provisions
 - Title V operating permit program
 - New Source Performance Standards
 - National Emission Standards for Hazardous Air Pollutant standards

Title V (Part 70) Operating Permit Program



Program Approval and Implementation

- ❑ March 2, 2012— EPA approved the Tribe's Title V Operating Permit Program Application and Treatment As a State Application
- ❑ Authorized full permitting, compliance, and enforcement authority under Title V
- ❑ Completed transition of all permits from EPA in March, 2015
- ❑ Began compliance inspections in 2014

What is a Title V Program?

- ❑ Required by Title V of the CAA
- ❑ Operating Permit Program for “Major Sources”
- ❑ Incorporates all “applicable requirements” into one permit to improve compliance
- ❑ Requires source to self-report compliance
- ❑ Program funded by Emission Fees

Program Elements

- ❑ Permitting
 - ❑ Currently 37 Title V sources on the SUIR
- ❑ Compliance
 - ❑ Each permitted source inspected every other year
- ❑ Enforcement
 - ❑ SUIR Enforcement Policy and Procedures Manual outlines procedures to bring non-compliant sources into compliance

Who's Subject?

- ❑ “Major Sources”

Sources with the Potential to Emit:

- ❑ **100** TPY of a single Criteria Pollutant

NO_x, SO₂, CO, PM_{2.5}, PM₁₀

OR

- ❑ **10** TPY of a single Hazardous Air Pollutant (HAP)

OR

- ❑ **25** TPY of combined Hazardous Air Pollutants

188 Listed HAPs

- ❑ Must apply for permit within 1-year of becoming major source

Types of Title V Sources on the Southern Ute Reservation

- ❑ 37 Sources, including:
 - ❑ 32 Natural Gas Compressor Stations
 - ❑ 3 Natural Gas Treatment Plants
 - ❑ 1 Natural Gas Processing Plant
 - ❑ 1 Municipal Solid Waste Landfill

Typical Emissions Sources at Natural Gas Production Facilities

- ❑ Compressor Engines
 - ❑ Reciprocating Internal Combustion
 - ❑ Turbines
- ❑ Tri-Ethylene Glycol Dehydration Units
- ❑ Tank vents
- ❑ Fugitive Emissions

Reciprocating Compressor Engine – NO_x, CO, VOC, HAP (formaldehyde)



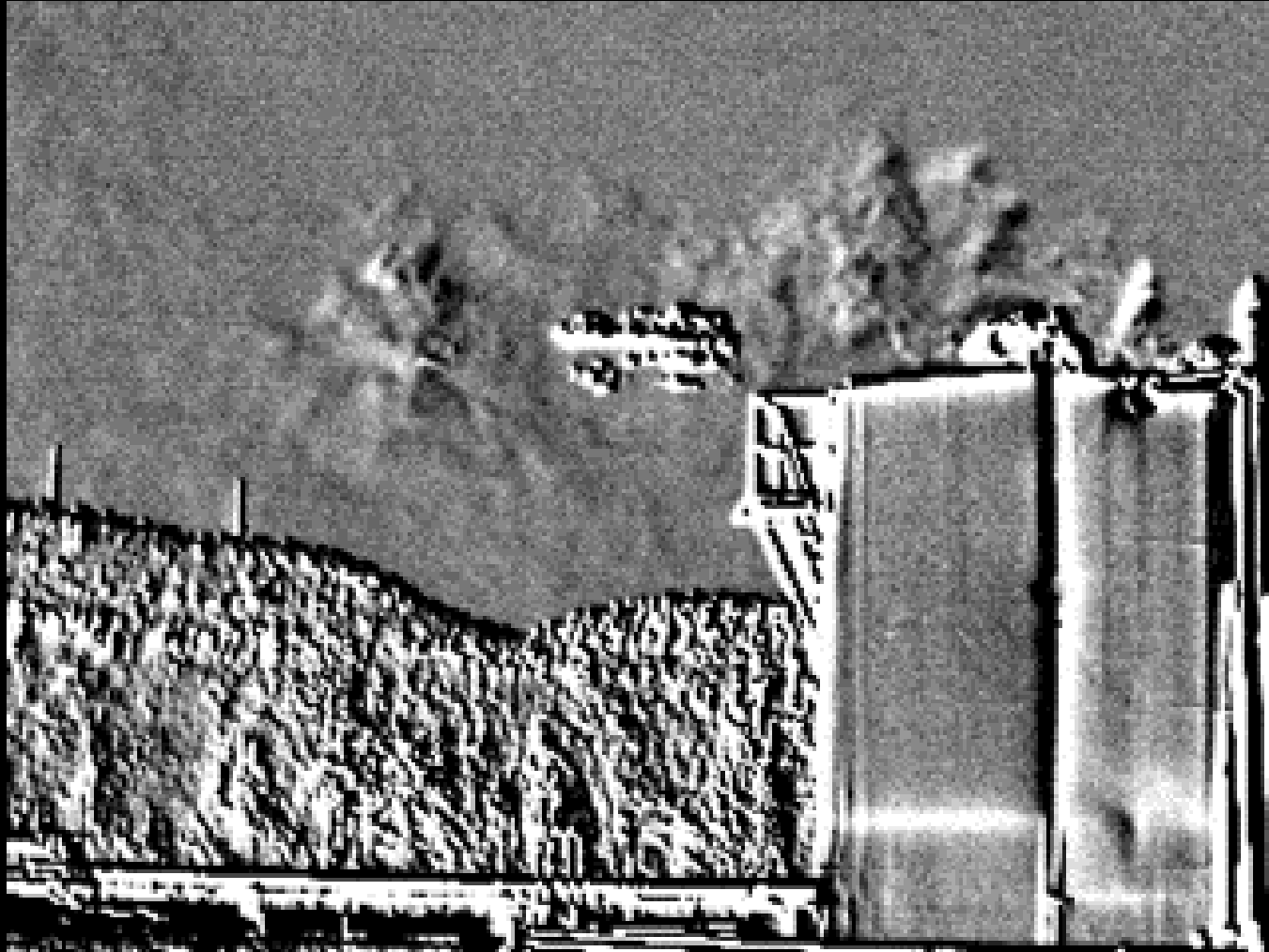
Turbine - NO_x, CO, VOC, HAP (formaldehyde)



Tri-ethylene Glycol Dehydrator – VOC and HAP (BTEX)



Tank Emissions – VOC and HAP (BTEX)



Fugitive Emissions – VOC and HAP



Benefits of the IGA and the Tribe's Part 70 Program

- ❑ Unified regulatory authority simplifies permitting on the SUIR
- ❑ Local presence allows greater interaction and more frequent source compliance inspections
- ❑ Title V specific staff allows timely permit issuance, compliance assistance, and response to inquiries
- ❑ Improved Air Quality

Program Development/Next Steps

- ❑ Development of comprehensive emission inventories for Southern Ute Reservation
- ❑ Monitoring the development of the Federal Tribal Minor New Source Review Program for Oil and Gas Production sector
- ❑ Continuing to identify and understand sources of air emissions on the Reservation



THANK YOU

Southern Ute Indian Tribe
Environmental Programs Division
Air Quality Program
P.O. Box 737
Ignacio, Colorado 81137
Phone: (970) 563-4705
<http://www.southern-ute.nsn.us/air-quality>